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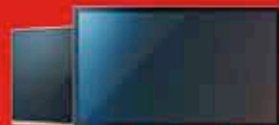
THE FREEDOM ISSUE

*Freedom from
censorship
and freedom
to choose*



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All the king's horses

The internet is like a game of Monopoly. Google owns all the happening spots on the board, Apple manufactures the boards, Facebook is the Bank, Yahoo! is praying for a get out of jail card, and everyone else is trying to get in on the action by providing fancy accessories. All this makes for much joy for those playing the game, until big brother walked in and kicked the living daylight out of you... just because.

Life was good. You did as you pleased, you were whoever you wanted to be, and no one knew the real you. Then Web 2.0 came along and dropped an A-Bomb on the world of make believe. Money, fame, sex, drugs, rock n roll, power struggles, bankruptcy and more all became a part of life online.

Not all of this is bad of course. What the net is doing is ensuring that we're all exposed to just about anything we want to be exposed to, and then some. There's no real division of classes, no segregation of races – rich or poor, male or female, idiot or Einstein, from all countries, in all languages, everyone's invited with open arms... like a first world country with an open border policy for all Earthmen.

Sadly, where there is plenty, there is greed, and the need to control. Just as countries want to try and control as much of the oil reserves as possible, governments are waking up to the reality that the Internet is valuable, priceless even.

Some dictatorships found out the hard way that the net could hit back, or the netizens could, at any rate. Perhaps this prompted governments to come out in the open and try and control the net. The hactivist group called Anonymous responded by hacking sites. A wrong to right a wrong?

The governments of the world, to their credit, have thus far kept their distance from the internet (with a few exceptions such as China of course), turning a blind eye to all but the heinous. Banning child pornography, for instance, is something the majority of the civilized world agrees upon. Piracy, well, not so much.

The FOSS belief is that everything should be free for everyone. Knowledge is to be shared after all, not sold. Companies whose bottomline is the only thing of concern to their stock holders obviously believe otherwise. Opinions are like...err... noses, everyone has one, and there are a billion of them out there, and who should stand in judgement of what's right and what isn't?

Was our government wrong to block Dailymotion (a video hosting site)? Perhaps. Were they wrong to block torrent sites? Perhaps not. Do you expect the world to believe that you use *thepiratebay* to download legal Linux distributions?


In a recent online chat with members of Anonymous' Indian arm, I played devil's advocate, posing these same questions to them. Whilst they had well-rehearsed answers to simple questions such as "Is piracy wrong", or "Who are Anonymous", the tones changed the minute I started challenging their thinking.

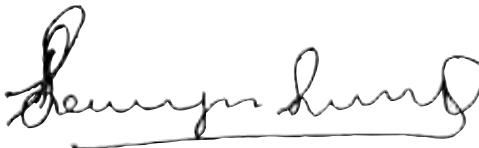
Pedophilia is illegal, so it's completely OK for governments to block that. Terrorism is the scourge of today, and we happily take off our shoes to be screened at airports, and don't mind our government snooping about to catch them. So what's the essential difference between these wrongs and breaking the law by pirating?

Everyone's scared of precedent though. Allow a government to block something that's illegal, next they want to block what's immoral. The problem is, immoral to who? If teachers can get slapped and thrown in jail for forwarding an email containing a cartoon/joke about an MP, what's next? The end of freedom of speech? Obviously no one wants that.

Something tells me that we, as people who come from the land of the Mahatma, as we celebrate our country's independence day, which was won without great wars or violence, should be able to figure the answer out.

I don't think hactivism is the real answer either. Two wrongs don't make a right, and all that. I prefer to think of the internet as the world of the future, where everyone's a global citizen, part of a hive mind that is spearheading our evolution. All of the current woes are just another battle being raised over the fertile lands. It might even get worse before it gets better, but it will get better. Eventually governments and officials will give up and move on. All of the problems we face currently are just another phase in the evolution of the internet. We will all learn from the mistakes of others and our own, and the internet will be stronger for it.

All the king's horses and all the king's men cannot fix what isn't broken... 



Robert Sovereign-Smith
Executive Editor
editor@thinkdigit.com

"Was our government wrong to block Dailymotion (a video hosting site)? Perhaps. Were they wrong to block torrent sites? Perhaps not."

Liked or hated this column?
Write in to editor@thinkdigit.com and let me know your thoughts.

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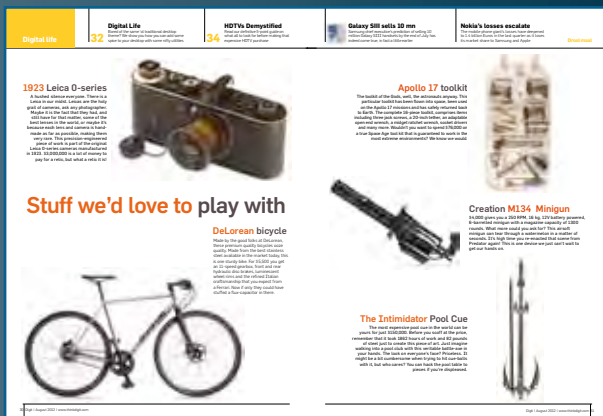
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day trial)

Kaspersky Internet Security
(trial)

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iSpy

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7-Zip

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Notepad++

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Asst. Editor **Nash David**

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Online Editor **Soham Raninga**
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Design

Sr. Creative Director **Jayan K Narayanan**
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Chief Photographer **Subhojit Paul**
Sr Photographer **Jiten Gandhi**

Contributors

Writers **Abhishek Chaudhary, Jait Dixit, Khsitij Solti, Mithun Mohandas, Paanini Navilekar, Priyanka Mathur, Ravi Sinha, Vaibhav Kaushal**

Production and Logistics

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Circulation Sales

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Manager Circulation **Dharmendra Singh**
Executive **Vijay Mhatre**

Reader Services

Lead Associate **Sourabha**
Executives **Itishree, Pinky, Sudhir, Sufiyan**
+91-22-678 99 678 / help@thinkdigit.com

Community Advisory Council

Ejaz Ashraf, Mayur Gaikwad, Bhuvneshwar Gupta, Prashant Joshi, Romin Joshi, Natraj Kadur, Rohan Mathew, Amitabh Mishra, Abhineet Mittal, Dev Mukerjee, Anuvrat Parashar, Dipankar Saha, Dilip Sanghvi, Suvra Sarkar, Arun Sriraman

Cover design **Anil T**

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Senior Executive (North):
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Published, Printed and Owned by Nine Dot Nine Interactive Pvt. Ltd. Published and printed on their behalf by Kanak Ghosh. Published at Bunglow No. 725 Sector - 1, Shirvane, Nerul, Navi Mumbai. 400706. Printed at Print House (India) Pvt. Ltd. R-847, TTC Industrial Area, MIDC, Rabale, Navi Mumbai 400701. Editor: Anuradha Das Mathur

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Toshiba Satellite M840-X4211
Freemove Tough Drive 3.0
Kingston Data Traveler Vault Privacy
Hitachi Deskstar 7K4000
ASUS EA-N66

Graphics Card Test

ASUS Direct CU II TOP GTX 680
ASUS HD 7970 DCII
Zotac GTX 680
Galaxy GTX 680
XFX R7970
ASUS Direct CU II TOP GTX 670
ASUS HD 7970
Zotac GTX 670
MSI R7950 Twin Frozr
ASUS HD 7870
XFX R7850
MSI R7770
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ASUS HD 7750
Zotac GTX 640
Galaxy GT 640 2GB
Galaxy GT 640 1GB
Zotac GT 630
Zotac GT 620
Galaxy GT 610

iPod Docks Test

Bang & Olufsen BeoSound 8
Philips DS9000/12
JBL OnBeat Xtreme
B&W Zeppelin Mini
Creative ZiiSound D5
Onkyo SBX-200 (B)
Logitech S715i
Onkyo ABX-100
Philips DS7550/12
Yamaha PDX-11
Croma iPod T Speaker
Logitech Bedside Dock for iPad
Philips DS1100
F&D i224

Linux Distro Test

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OpenSUSE 12.1
Linux Mint 13 (MATE)
Fedora 17
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Mageia 2

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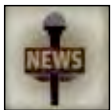
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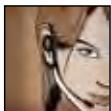
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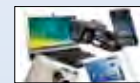
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Buzz

Higgs Boson discovery, Samsung's new point and shoot, Angry Birds on new platforms and many news

Poor service not acceptable

Brazil's telecom regulator, Anatel has penalized three major telecom providers Claro, Tim and Oi for providing poor service

✉ I just love Digit. It's very informative and also appealing. The language used is very simple. I just have a small suggestion: why don't you start a column written by the readers? Many tech-savvy people like us, are more than enthusiastic on sharing our experience on various technologies that we use. I can surely understand the burden on the editing staff to go through so many articles you might receive, but it would really help many who would like to share their expertise. Is there any chance for career at freelance writing in Digit? If so how can we approach for the same?

Teja Simha

📌 We are open to accepting freelance contributions from our readers. In fact, if you're really passionate about technology and think you can authoritatively speak about certain topics, consider joining the Digit Squad (for more information, go to www.thinkdigit.com/digit-squad) and we can help you share your tech expertise with the Digit community at large. For contributing freelance articles, drop a mail to editor@thinkdigit.com with the subject "Freelancer Writer" and we'll get back to you.

Jayesh

✉ I'm Dr. Iris and am pursuing a PG in Dentistry. I am a huge fan of Digit. Your editorial last month was wonderful. I wrote this mail with regards to the Nikon D4 review that you had carried in July. I was quite surprised to see it get an overall score of 6/10. I think it deserves better as it's surely not a bad camera. As a regular reader and knowing the way you review cameras, I expected about 7.5. The price, yes, it's very high, but we all know it's not meant for everyone.

Iris Valsan

📌 We have re-printed the entire review along with the correct scores in this issue, since we erroneously published ratings for some other product. We sincerely apologize for the error.

Swapnil

✉ Honestly it has been a long time since I wrote to you, but the June 2012 issue made me write. I preordered my issue and unfortunately I got it very late, in the last week of

Feedback for the July 2012 issue of Digit



June. Although when I read the magazine all my anger dissipated, as you had fulfilled my long-awaited request of PDFs of FastTracks on the DVD. Now I have some complaints and some suggestions.

Complaints

1. You are a monopoly and there is no competition to you. I read three magazines this month and they were nothing compared to you. It's more of a compliment I know, but seriously you need competition.
2. The delivery time is too much. Please try to make the process faster.

Suggestions

1. When you compare products then it would be great if you could talk about products from the category which are not included in the test. For instance, if you test monitors, then you always suggest something among the products under test, but at times there may be better products which may not have reached your test centre. Could you give them a mention?
2. Please give a Fast Track to Gaming. You gave it in Dec 2005 last time, which is a long time. Yeah I do know that you gave a Fast track to Gaming consoles but still a Fast Track to Gaming is awaited.

Abhishek Anand

📌 It's terrible that you received the June issue only in the last week. Can you give me your booking reference, I'll have that looked into.

Unfortunately, we cannot suggest or rate products that we haven't used or put through our rigorous testing methodology. This would be unfair to brands who take the trouble to send us products to ensure that you get a fair rating from Digit about their products. Some brands have valid problems getting us products, or don't send products that are end of life (although those products continue to sell in the market through dealers), and yes, some brands just don't want to participate, because they feel they risk a negative review, or just don't care enough, because their products will sell anyway.

This is why we will never recommend a product that we haven't tested, I hope you understand. We will surely discuss the Fast Track to Gaming idea in our next edit meet.

Robert

✉ I am reading your magazine since 2001 when I was 10 years old. I consider Digit as my guru as it has not only improved my tech knowledge but also helped me in improving my writing skills. I have a few suggestions for editorial team of Digit and they are as follows:

RICOH
imagine. change.

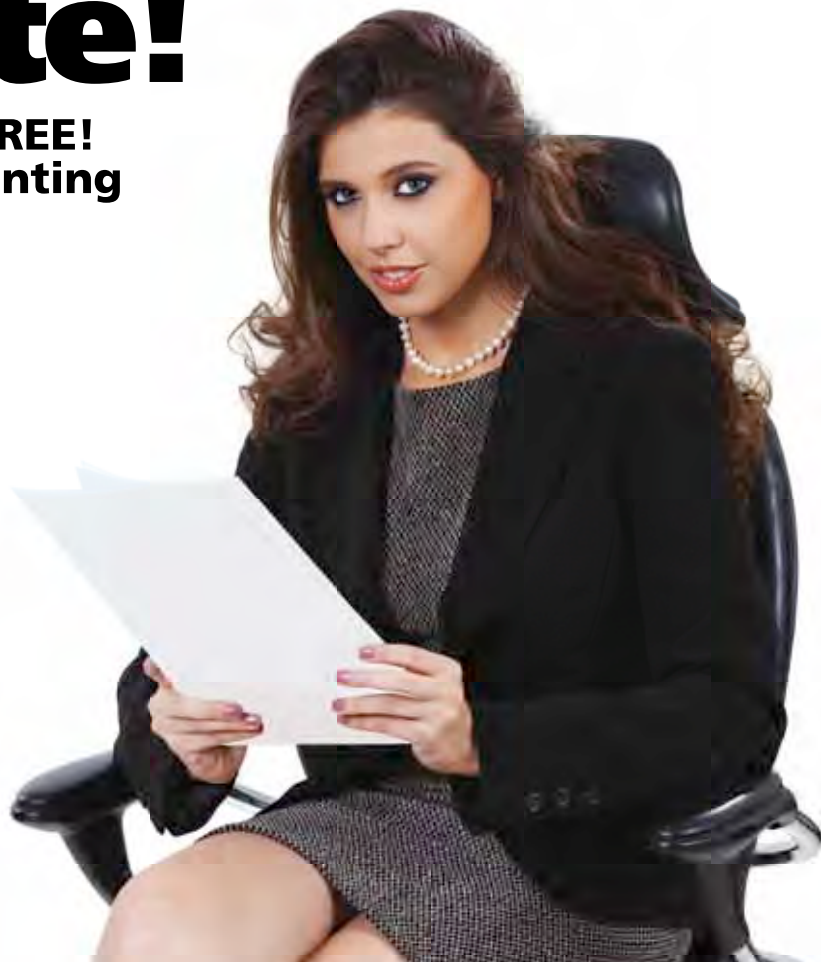
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- Standard PDL: GDI
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Oxygen for the dead zone

Swedish scientists test a new solution for pumping oxygen into the Baltic Sea to bring life back to the 950 ecologically dead zones



11 facts about Marissa Mayer

Have a look at Google's first female engineer and its 20th employee's history and achievements.
<http://digit.in/MiHECm>

LETTER OF THE MONTH

✉ I have been a subscriber of Digit since its inception. I have seen the magazine grow. After reading your July 2012 issue, an idea popped in my head. Just as in your July issue, where you have tested several Z77 Motherboards for Intel Processors, can't you give such test/comparison of several AMD processor supported Motherboards? I also want to suggest you to kindly provide one or two columns (or rather rows) and specify which processors or range of processors that particular Motherboard supports and which it doesn't. Please provide price tag separation as upto ₹10,000, upto ₹20,000 and above ₹20,000. Please also provide whether the particular Motherboard has inbuilt video or not.

Also provide a comparison test for popular and latest graphics cards for both Intel and AMD platforms.

And last but not the least, in the "Price Watch" part of the "Street Smart" section please always provide both Intel and AMD rig suggestion along with graphics cards, monitors, hard disks, RAMs, DVD Writers, among other things.

I think you will agree with me that if these are included in Digit then it will be much more complete and will attract much more readers than today.

Roubhya Shankar Aluni

■ We will definitely be doing an AMD motherboard comparison test in the near future and will try to implement your suggestion regarding mentioning which processors are compatible

with which boards. Ideally, we would really love to have price brackets which are multiples of 5000, but it all depends on what products we get. We generally decide on the price brackets in such a way that each bracket gets roughly the same number of products. It does not make sense to have just 2 products under ₹10,000 and 20 products in the ₹10,000 to ₹15,000 bracket right?

We have compared graphics cards this month, so please check it out. The reason you rarely find AMD rigs in our killer rigs section is that we try to find the most optimum configuration in that price bracket. We will try to incorporate more AMD rigs though.

Nimish



- 1) Please include stories of great computer scientists and their inventions and innovations.
- 2) Introduce a special column about great tech companies such as Google and their success stories.
- 3) Include a special article on how to write tech articles and if possible conduct a workshop on this subjects for citizen journalists like us and for all the other tech nerds.
- 4) Write about the future of technology in every issue.
- 5) If possible release a Fast Track on Film-making and include great award winning documentaries in the Digit DVDs.
- 6) My last suggestion is a request, can you allow us to bring some of the tech

crazy underprivileged children to visit your office.

Chinmay Majlikar

■ We will try and profile more scientists in the coming issues, but we cannot have dedicated column for it as we are primarily a Technology magazine and not a Science magazine. We keep profiling important companies every now and then. In our section called Tomorrow's Tech and From the Labs, we always talk about future technologies. For instance,

this month you can read about what kind of research is being conducted in the sphere of Battery tech, so that you get batteries that run for weeks without charging. Fast Track on Film-making surely sounds interesting. And yes, our doors are always open for our readers. Just drop us a mail and we would be happy to show you around our office.

Siddharth

✉ I am a final-year Computer Science student. I was never a very tech-loving girl. Sometimes I think I made a wrong career choice. Technology connects me to my friends and family. Today, after having the understanding of technology and being into it, I have started finding almost every section of Digit useful. I have a smartphone but was never completely aware of all its wonderful features till I came across the article, "Five cool ways to use the GPS-enabled smartphone." Digit is not just keeping us up to date, but also is making us use technology in a better way.

Then the editorial on the side-effects of technology was also an eye-opener. You could have given some solutions as to how we can avoid the side-effects in it.

My brother also has a few suggestions for Digit. He reminisces about the old days when we used to get a giant game poster along with an issue of SKOAR! Please resume that.

Nandini Nelson

■ It feels wonderful to know that both you and your brother are ardent Digit readers. Do check out our website and the Thinkdigit forums (<http://www.thinkdigit.com/forum/>) where you can get all your queries resolved by the community. We are glad your brother likes SKOAR! and we will try to include a game poster in the future SKOAR! issues.

Jayesh

REASON 1

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Working woman, flock online

MyGrahak.com has become India's largest retailing platform for selling food, grocery and household items by working women in Delhi and NCR <http://mygrahak.com>

New Firefox Features

The latest version of Firefox is out. It is claimed to be more secure and aims to make Web applications more powerful. Read more at <http://dgit.in/Q9r0Qk>

Higgs boson has been discovered, according to CERN scientists

Physicists working at the CERN laboratory on the Large Hadron Collider's (LHC) Compact Muon Solenoid (CMS) and A Toroidal LHC Apparatus (ATLAS), announced the discovery Higgs boson, popularly known as the God particle which is the key to understanding the formation of the universe in a way.

At a seminar held at CERN, the ATLAS experiment – one of the seven particle detector experiments at the LHC – presented its preliminary results observing a new particle in the

mass region of around 125-126 GeV, with a mass of roughly 130 times a proton.

"We observe in our data clear signs of a new particle, at the level of 5 sigma, in the mass region around 126 GeV,"

said ATLAS experiment spokesperson Fabiola Gianotti. Which means that scientists are 99.999 percent sure of the results or a false positive probability of 1 in 9 trillion!



According to the Standard Model – a theoretical model which describes the fundamental particles and forces that control the Universe – the Higgs boson provides mass

to all other particles. The experiments being conducted at the LHC aim to collide protons travelling towards each other at the speed of light. The debris that would be formed after the collision would be examined. Although the results are preliminary, based on data collected in 2011 and 2012 with the

2012 data still under analysis. The complete results will be presented towards the end of the year when the LHC will have completed more experiments with more data. **d**

Angry Birds Trilogy crashing in on the Xbox 360, PS3 and the 3DS

Game developer and publisher, Activision, and Angry Birds' Rovio, are working together to bring the Angry Birds trilogy to home consoles.



Angry Birds, Angry Birds Seasons and Angry Birds Rio will fly onto the PS3, Xbox 360 and the Nintendo 3DS in December. No specific release dates were mentioned. The

game will support the Microsoft Kinect, PlayStation Move and Street Pass for the 3DS.

In the meanwhile, Rovio's Amazing Alex franchise debuted on iOS and Android platforms.

The franchise is a rebranded version of the puzzle classic Casey's Contraptions, which the company bought earlier this year.

Amazing Alex features a 100 'challenging' levels, fan-created puzzles and regular free updates.

Amazing Alex for iPhone is available at \$0.99, while it costs \$2.99 for iPad. Rovio in a Facebook post said that PC, Mac and Windows Phone versions will be launched soon. **d**

Samsung's New EX2F f/1.4 Point-and-Shoot

Samsung's imaging division has up until now focused on delivering cameras with a rich feature-set such as built-in Wi-Fi and onboard GPS. However, the image quality on these cameras was mediocre at best, with barely average optics. Samsung's newly announced EX2F puts that legacy to rest, as it packs a 12.4MP 1/1.7-inch backside-illuminated sensor (the same size found in the Canon S100 or the G12).

The sensor is backed in performance with the world's first f/1.4 wide aperture lens in a

point-and-shoot. The lens has an optical zoom range of 24-80 mm, at which the maximum aperture goes down to a still pretty impressive f/2.7.

Usual features include ISO sensitivity range of ISO 80-3200, expandable up to 12800 along with full manual controls. The camera also records full HD video at 30 fps and can even record full resolution stills while doing it. Then there is the signature Samsung built-in Wi-Fi that can be used to upload the images directly to popular social networking sites (or sent via e-mail). **d**



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GoDaddy acquires outright.com

Domain provider company Go Daddy recently announced that, Outright.com financial management company has been acquired by them. <http://digit.in/NNEwSM>

SkyDrive Updated

A new version of the desktop client for SkyDrive has been launched for Windows. Check it out here. <http://digit.in/MMnY9b>

Google I/O 2012: Jelly Bean-based Nexus 7 tablet from ASUS launched

Google has announced the Nexus 7 tablet at its annual Google I/O event, a device manufactured by ASUS. As the name suggests, the device has a 7-inch screen, with a resolution of 1280x800, and will be powered by the NVIDIA Tegra 3 processor with its 12-core GPU, coupled with 1GB RAM.

The front of the device has a layer of Corning FIT glass, while the display itself features ASUS' "TruVivid" technology. It has an IPS panel with a 178-degree viewing angle. It has a 1.2 MP front-facing camera and boasts of NFC. The device weighs 340 gm and houses a 4325 mAh battery. Google claims that the device will last for up to

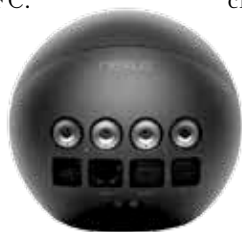
9 hours of video playback and 300 hours of standby time.

The device is the platform lead device for Android 4.1 Jelly Bean. The Nexus 7 tablet is priced at \$199 and some Indian e-tailers are selling it for around ₹16,952 for the 8GB variant.

In the meanwhile, rumours of an Amazon Kindle Fire 2 have begun circulating as well, predicting a launch period of Q3 2012. The Amazon Kindle Fire 7-inch tablet, the first, priced at \$200 from a major manu-



Nexus' dual-core processor, and connects to the Google Play store. According to Google, the Nexus Q is the world's first social streaming media player. It comes with 16 GB of built-in storage, and will allow users to push Android content from the Google Play store, apart from YouTube content, to their home TV and speakers. It supports Wi-Fi, Ethernet, micro-HDMI, optical audio, USB, Bluetooth, and NFC connectivity. It can also be controlled via your Android handset. As for the social streaming aspect, Google says the Nexus Q will allow friends to add videos and songs to the user's Q device, and push their content to the top of the playlist. The Nexus Q is currently available for pre-order on the Google Play store for \$299, but for now though, is only available for the US. **d**



EA launches SimCity Social, to take on Zynga's CityVille

Electronic Arts has announced the launch of a new social game called SimCity Social – a move being considered as an attempt to dethrone Zynga from the top of the social gaming segment.

EA's SimCity Social is a city-building simulation game, jointly developed by EA's Maxis and Playfish game studios. SimCity Social features sponsored content, so players can send branded boosts to fellow players who can use or store them for needed "energy". EA said it will be adding sponsored bonuses across the year.



"SimCity Social will entice a new generation of urban planners with its easy-to-use tools that allow anyone to expand and grow their own unique sprawling metropolises and watch as it comes to life in fun and unexpected ways," said Jami Laes, the vice president of Global Studios for Playfish

is quoted as saying. "SimCity Social is about playing with your friends. Whether you do that with kindness, by helping put out a fire or through mischievous acts like helping a criminal escape, the decisions you make with your friends will determine how the story of your cities plays out."

EA has also announced it will be launching a boxed-product iteration of the game for PC in February 2013. The PC iteration will have a new gameplay mode and will enable players to deal with issues such as climate change, renewable resources and natural disasters. **d**

REASON 2

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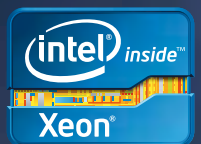
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Web Watch

18

Yahoo attacked by hackers; MS acquires Yammer and more news from the web world

App Watch

22

We take a look at apps that will help you find the right jobs and help you in your career

Google's new Android 4.1 Jelly Bean OS detailed

Google introduced the latest version of the Android operating system at its I/O developer event, called Jelly Bean. It's an incremental update to ICS (not Android 5.0 as had been expected), which is aimed to make Ice Cream Sandwich "smoother, faster and more fluid". It mostly brings UI changes ranging from improved notifications and onscreen keyboard, to widget control, voice typing and the native camera app. Most importantly however, are the host of developer changes it brings, which promise to give app-creators greater flexibility and control.

First up, in the list of changes to Jelly Bean, is Project Butter



App widgets on Jelly Bean

– which uses vsync timing and triple buffering to make the touch responsiveness of Jelly Bean devices smooth. Google says that touch responsiveness


has been further improved by predicting where the next touch will be, and in case of a time-out, will use a CPU input boost to ensure minimal latency.

Google has improved the widget-adding experience with Jelly Bean. App widgets can now be automatically resized, depending on where they're dropped on the homescreen, the size to which they're expanded, and the space currently available.

With Jelly Bean, Android notifications will now be interactive, and expanded to show more information, access features, etc., without opening the relevant app. Notifications will now support image content, feature up to three preset actions (such as sharing, or +1-ing) and user-configurable display priority.

Google has introduced Offline Voice Typing to Jelly Bean, placing the previously-cloud-accessed Google Speech Recognizer on the device itself. For now, it only supports U.S. English, but more languages are due later.

Google has made improvements to the native ICS camera and gallery apps as well, with the new Jelly Bean version supporting an undo button, simple deletion UI, and a film strip mode.

Lastly, Google has introduced a Siri-competitor, called Google Now, which uses the Card UI and voice to provide search information, before you search it – something that Google has been advocating for years now. 

MediaTek brings Twitter app to feature phones

Taiwan-based fabless semiconductor company MediaTek has entered into a partnership with Twitter to bring the micro-blogging service to MediaTek-based feature phones. MediaTek will be pre-loading Twitter's smartphone application in its own MRE mid-ware used in feature phone reference designs.

"With MRE, smart-feature phones will be able to run Twitter on minimal memory and hardware requirements, allowing manufacturers and brands to offer price-friendly devices with mobile Internet services", MediaTek said in a release.




The first feature phone design solution to carry Twitter applications will be MediaTek MT6255. The company says the Twitter integration will be available on all MediaTek mobile platforms in the future. It is a win-win situation for Twitter which will be exposed to Chinese and South Asian market. 

Mozilla announces Firefox OS mobile ecosystem

For the past few months, Mozilla has been working hard on their HTML5 and open web standards-based mobile operating system. First announced back in July 2011 as the 'Boot to Gecko' project, Mozilla demoed the

operating system at MWC 2012 and detailed plans for an app store. Now, Mozilla has announced that Boot to Gecko will be known as Firefox OS. It's expected to hit commercially in Brazil in 2013 with the help of Telefonica's brand Vivo and Mozilla Corporation.

Mozilla said that the Firefox OS will be available on new generation smartphones, which will entirely meet open web standards. That means the basic functions of the devices such as calling, messaging, music and games can be developed entirely as HTML5 based applications. 



Firefox Mobile OS-522

TRAI issues draft regulations to monitor quality of mobile data services

Even as telecom operators expand their 3G and BWA services in the country, the Telecom Regulatory Authority of India (TRAI) has announced draft regulations to benchmark and monitor the quality of mobile data services offered by the telcos. The regulator already has similar norms in place for voice services. Overall, TRAI has created as many as nine parameters

benchmarks to monitor service providers.

The major benchmarks include service activation within three hours, with at least 95 percent success rate. For data transmission download attempts, rate should be more than 90 percent, and data transmission upload attempts should be more than 85 percent. Additionally, the body also intends to conduct audit from time to time **[1]**

Former Nokia execs salvage MeeGo for smartphones, first device due in 2012

It looks like MeeGo for smartphones is not as dead as many dreaded. Despite Nokia abandoning the platform and its incumbent developers for Windows Phone, there seem to be enough supporters of the Intel-Nokia developed OS to spark a re-emergence. Jolla, a Finland-based startup that is made up of former Nokia employees (including Marc Dillon, former Principal Engineer for MeeGo at Nokia), has announced it will be keeping MeeGo alive for smartphones, and that it intends to launch the first MeeGo-based smartphone later this year. "Nokia created something wonderful – the world's best smartphone product. It deserves to be continued and we will do that together with all the bright and gifted people contributing to the MeeGo success story."



Nokia N9 sporting MeeGo

The news has made a lot of critics and users happy, who were initially excited by the sheer usability and beauty of the Nokia N9, the first and last MeeGo-based smartphone from Nokia. MeeGo development is continuing unabated for other platforms, such as netbooks, kiosks, and information systems. Jolla's decision though, will probably jumpstart further MeeGo for smartphone development, bringing it up to the mark of the recently updated operating systems, from Android 4.1 Jelly Bean, to iOS 6, and the upcoming Windows Phone 8. Of course, the question of the app ecosystem once again becomes relevant, something that forces fledgling operating systems time and time again to hit the wall, such as Samsung's Bada OS, and Nokia's Symbian OS. **[1]**



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Google product deaths

iGoogle, Google Video, Google Mini and a couple other projects of Google meet their demise. <http://dgit.in/LPNNbe>

**Beta ways to communicate**

In the latest beta release of Chrome, it is possible for you to grant web apps access to your camera and microphone right within the browser. <http://dgit.in/McQaTl>

Yahoo falls prey to hackers; over 400,000 account credentials leaked

Yahoo Inc. has said that it is investigating reports of a security breach that saw nearly half a million users' e-mail addresses and passwords leaked out on the Internet. The company, however, confirmed the compromised user information belongs to Yahoo Voices services, previously known as Associated Content. Hackers belonging to a group called 'D33Ds Company' have claimed responsibility of the security breach.

Yahoo said that only less than 5 percent of Voice accounts had still-valid passwords, but the leak of file had revealed e-mail addresses of hundreds of thousands of its users. In an emailed statement, Yahoo further said that it is working to fix the vul-

nerability that had caused the security breach. The company also assured of changing victim users' passwords and notifying companies with accounts that might have been compromised.

"We apologize to affected users. We encourage users to change their passwords on a regular basis and also familiarize themselves with our online safety

tips at security.yahoo.com," read the Yahoo statement.


Hackers group D33Ds Company posted a text file with the leaked information online and revealed that they had applied union-based SQL injection to breach the data. "We hope that the parties responsible for managing the security of this subdomain will take this as a wake-up call, and not as a

threat," D33Ds said in a message accompanying the leaked data.

"There have been many security holes exploited in Web servers belonging to Yahoo! Inc. that have caused far greater damage than our disclosure. Please do not take them lightly. The subdomain and vulnerable parameters have not been posted to avoid further damage."

Meanwhile, *The New York Times* in its report says that the more than 400,000 usernames

and passwords that have leaked included log-in information for mail, Hotmail, Comcast, MSN, Verizon, AOL, SBC Global and Live.com accounts. According to the U.S.-based Security Firm Rapid 7, the information features 106,000 Gmail account credentials.

"The most alarming part of the entire story was the fact that the passwords were stored entirely unencrypted," the security firm said in its blog. 



LinkedIn starts rolling out 'simpler' home page design


LinkedIn has announced a redesign of its home page in order to make it look cleaner and easier to use. The professional networking site is also working to make the navigation process simpler and add a richer update stream.

LinkedIn, in a blog post says the redesigned homepage will make it easier to scan and find the information a user is looking for. Also, the simpler and cleaner design makes it easier to navigate the page.

Moreover, users can now see the important and relevant news updates on the top of the feed. This is supposed to make it easy for users to go through trending topics, news and professional updates, based on your connections and industries you are associated with. LinkedIn says this will reduce time spent on hunting for information on the website.



LinkedIn's redesigned home page


LinkedIn has also dropped Twitter integration, with the their three-year partnership ending in July. Earlier, LinkedIn users could link their accounts to Twitter, with messages posted to Twitter automatically showing up on the LinkedIn news feed. That will no longer be the case. 

Microsoft acquires Yammer for \$1.2 bn

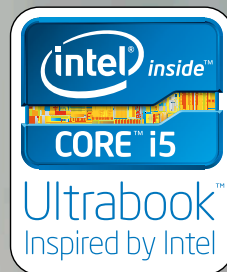
As expected, Microsoft has officially acquired enterprise social network Yammer for \$1.2 billion. Yammer will join the Microsoft Office division, led by Kurt DelBene, and the Yammer team will continue to report to current CEO David Sacks, Microsoft said in a statement.

"The acquisition of Yammer underscores our commitment to deliver technology that

businesses need and people love," said Steve Ballmer, CEO of Microsoft. "Yammer adds a best-in-class enterprise social networking service to Microsoft's growing portfolio of complementary cloud services."


Microsoft said Yammer will continue to develop as a standalone service. Going forward, Microsoft will incorporate Yammer into offerings like SharePoint, Office 365, Microsoft Dynamics, and Skype. 

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Wiki goes dark

Wikipedia shut down its Russian site for a day to protect online freedom, as a protest against a legislation under consideration in Moscow. <http://dgit.in/NpheSa>



World Wonders Project

Based on Street View, it's a feature of Google Maps that allows you to navigate on street-level. <http://dgit.in/NMCTof>

Facebook round-up

The world's largest social network had changed users' default email addresses to @facebook.com, for a short while in the end of June, without notifying users, drawing severe criticism.

Facebook had launched an email service in November 2010 amidst very little fanfare.


Programming Interface (API), which pulled the last e-mail address mentioned in the account, instead of the primary e-mail addresses.

Referring to reports on 'lost' e-mails due to change in contact info, the social networking company said that by default, messages from friends or friends' friends

in these countries will see the App Center bookmark on the left navigation menu on Facebook and also on iOS and Android apps. The social networking company will be rolling out App Center to users in Brazil, France, Germany, Russia, Spain, Taiwan, and Turkey in the coming weeks. To put in Zuckerberg's words, there will be a more frictionless experience on Facebook.

Facebook is also rumoured to launch a job posting service, one that would compete with the professional social media site LinkedIn, According to reports,

Facebook has already partnered with various job-posting companies such as BranchOut, Jobvite and Work4Labs, which are expected to pair with the platform. Facebook refused to comment on rumours of launching a job board.

July also saw Facebook redesign its Events feature, adding Calender and List views. It allows users to view friends' upcoming birthdays, event invites and even suggested events on a calender – instead of the traditional list format. It is funny how even Google+ announced an Events feature. 



Facebook App center

The social networking company allowed users to have @facebook.com addresses and receive normal e-mails in their message inboxes. The service, then foreseen as an attempt to take on Gmail, was aimed at enabling users to communicate with external email addresses via Facebook.

The social networking giant said change was due to a bug within the Application

come into users' inbox. And everything else moves to *Other* folder, which is placed below *Messages* in your left hand navigation menu.

In the meanwhile, Facebook began a global roll-out of App Center, its web and mobile Facebook app repository. It is now available in seven more countries, including Canada, Ireland, New Zealand, South Africa, U.K. and India. Users


Digg sold for \$500,000

Digg, a once-popular social bookmarking site, has been acquired by BetaWorks, for a paltry sum of \$500,000. The site has been slipping in popularity for a while, losing users to competition from Reddit, and Pinterest. Back in 2006, Digg was amongst the top 25 web sites visited in the U.S.

According to ZDnet, Digg's fate started turning around in 2010, when a group, the Digg Patriots, was revealed to be attempting to censor certain liberal campaigns, using multiple accounts to ban certain posts.

Kevin Rose, Digg's co-founder, then apparently tried to rework the Digg voting system to remove the perceived potential for partiality. Unfortunately however, the Digg community felt the voting system was no longer in their hands to control, and left in droves.

By 2012, Digg barely had any staff left to run it. According to a Wall Street Journal report on the matter, after the acquisition, no Digg employees will be retained. Digg will apparently be integrated into BetaWorks' news.me service, which will send news and other posts to users via mobile and email, from Facebook, Twitter and Digg feeds.

Speaking about the acquisition, Matt Williams, Digg's CEO, said, "Digg has always been a site built by the community, for the community. Over the last few months, we've considered many options of where Digg could go, and frankly many of them could not live up to the reason Digg was invented in the first place – to discover the best stuff on the web. We wanted to find a way to take Digg back to its startup roots." 

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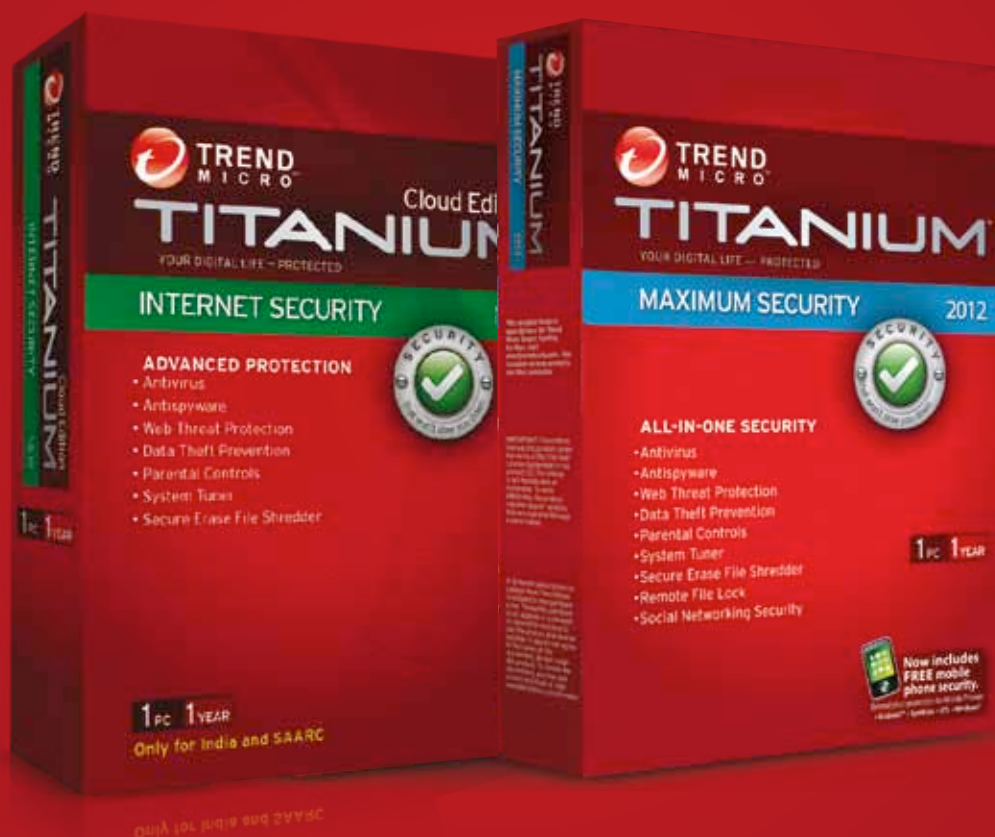
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Drones save the day

Professor Nick Jennings studies ways to help humans in times of a disaster using drones, which provide a live aerial view of the disaster for rescue teams. <http://digit.in/Oja4uE>

**Low cost Nigerian tablets**

Saheed Adepoju of Nigeria is a young entrepreneur who has developed an Android based tablet INYE costing around \$350

Search for better job prospects conveniently at your fingertips

People are constantly on the lookout for better job prospects. In today's digital age, we point you towards a few essential apps that should greatly help you on your way to the job you desire

Jayesh Shinde

jayesh.shinde@thinkdigit.com

You don't want to search for a new job from your office computer or internet connection (the IT borgs will know!) unless you want to commit career-suicide. While at work, one of the best apps to look for greener pastures on the job front is Monster Jobs, available on both iOS and Android devices. Firing up the iPhone version, Monster Jobs asks

you to select your country on first run, following which you arrive at the home screen or dashboard. Consisting of four icons in a loose grid, the app's dashboard is nice and simple. You can either choose to search for jobs or check career services, besides registering a new account and login. Once you login and create a profile, the dashboard introduces two more icons to the existing four. Hit the job search icon to fill three simple fields which asks you for a keyword, location and experi-

ence – you'll recognise this as the simplified (but functional) version of the top search bar on Monster.com's homepage, which makes job hunting so much easier. We tried searching for various kinds of job combinations and the app threw results within 1 or 2 seconds, which is quite snappy if you consider the size of database it has to scour. Whether it was through 3G or Wi-Fi, the app consistently threw search results under two seconds, leaving us impressed by its efficiency. In the next step, you just scroll through the search results list and apply for a job you like. The whole process couldn't be more easier.

The Monster.com app lets you manage your account quite well over supported mobile devices, you can view your profile, view your prospective employer's profile and forward resumes to a bunch of interesting leads. For someone hunting a job for the very first time, the app's *Career Services* is a nice prep up tool with pointers for writing flawless resumes and nailing an interview. Go ahead, give this app a try.

Rating: 3.5/5

Type: Free

Other apps worth checking out Naukri.com

The Naukri app is available on iOS, Android and BB platforms, and works similar to

the Monster.com app we mentioned alongside.

One thing we really like about the Naukri.com app is its bottom tab menu which remains consistent across different pages, giving you an easy option to jump across various features of the app in a single click. It's a feature that the Monster.com app lacks, unfortunately. While searching for a job, the Naukri.com app features an important parameter "Expected Salary", which is also found missing on the Monster.com app. At this point, we have to say the Naukri.com app is slightly well thought out than the Monster.com, in terms of interface design.

Having said that, we think the Naukri.com app is a bit laggy and suffers from UI bugs which spoils the experience quite a bit. While entering keyword and location the keypad pops up to assist, but it refuses to go down while scrolling through the experience and expected salary parameters – it's annoying, really.

At least on the iPhone version of the Naukri.com app, kinetic scrolling through long lists wasn't smooth, which points to a flaw within the current application build. Most of the Naukri.com app's features are accessible only after you create a profile and login through the app. Whether you use the Monster.com or Naukri.com app, we recommend signing up for an account and creating a profile



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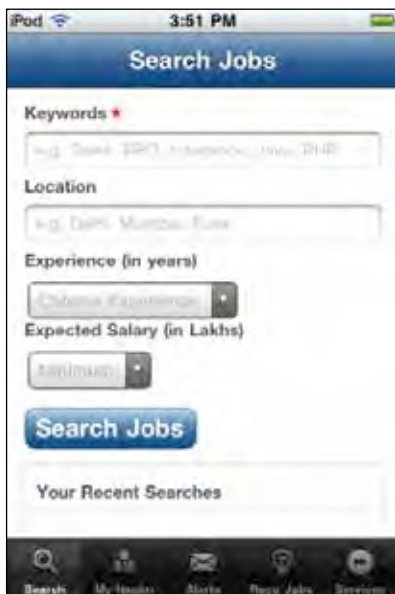


Canon's EOS M series

Canon has finally entered the mirrorless compact camera market with the launch of the 18 MP APS-C sensor sporting EOS M series camera

HTC sells Beats audio stakes

HTC has sold 25 per cent of Beats Audio shared back to the audio manufacturer for \$150 million. HTC will still retain exclusivity though



Naukri.com app's layout is very well thought out

to unlock the full functionality and benefit of the two apps on your mobile device.

Rating: 3/5

Type: Free

TimesJobs

This app is a must-have on your smartphone to complete the trio of recommended and essential apps for job search. Available on the iOS and Android platforms, TimesJobs is a freely downloadable app.

Through the app, you get a similar interface and job search experience like you encounter on Monster.com or Naukri.com's app. But where it differs slightly is that immediately after installation and first run, the TimesJobs app's first screen shows a list called Jobs by Industry. It lets you quickly look at the industry you're affiliated to and the total number of jobs on offer. Without entering any criteria, you can just scroll through the list and zero in on the job you're looking for. This is a nice starting point to TimesJobs. However, the in-app adver-

tising can be a bit irritating at times, as it eats into the precious little screen real-estate of the iPhone. Like the previous two apps, TimesJobs also lays incentive on creating an account and profile through the app to help you make full utilization of the app's features.

Like the Naukri.com app, this app also includes a bottom menu tab for quickly accessing the homescreen or your profile details. It doesn't have any extra features regarding tips to crack your job interview or writing resumes like

you saw on the Monster.com app. But throughout our time spent on the TimesJobs app, whether it was scrolling through several hundred lines of job listings or retrieving jobs as per specific keywords, we faced no issue whatsoever. The app's interface is simple and intuitive, it doesn't suffer from any lag or visible bugs.

Rating: 3.5/5

Type: Free

LinkedIn

Not quite a job searching app in the strictest sense of the term, but LinkedIn is a prominent social network of professionals connecting from all over the world. It lets you manage your professional identity and is a great place to network with people from a diverse professional background and exper-

tise. For HR managers in many companies, scouting for new talent online is getting synonymous with searching LinkedIn's database for the right person to hire.

The LinkedIn app is really extensive for your mobile device (iOS, Android, BlackBerry), giving you an almost uninhibited access to every feature of LinkedIn you'd otherwise get on your desktop browser. We tried our hands on the iOS app, and it really didn't hold anything back in terms of experiencing LinkedIn to the fullest on the iPhone.

After installing the app and on first run, you are greeted with four thumbnails arranged in a grid. Each of these thumbnails point to a feature of the app - Updates, You, Inbox and Your Network. Whether you scroll through the latest feed updates by your LinkedIn friends or tweak your profile to reflect the kind of work you've done in the past, every aspect of the LinkedIn app just works very well. The app is fast and we encountered no bugs or faulty UI lag.

Through the LinkedIn app, you can stay in touch with professional contacts, ask for recommendations and hopefully get a job offer that you've always wanted.

Rating: 3.5/5

Type: Free



LinkedIn's app is a great tool to network with the right people for better job prospects

Don't forget Facebook

Yeah, we all know that most Facebook apps are spammy, but not all of them are quite as bad. Increasingly, HR managers are scouting social media destinations for prospective recruits, and Facebook's clout as the world's #1 social network means it's an ideal starting point for job recruiters. **BranchOut** is the most common app to seek out new job opportunities, but it also sends out a lot of spam messages and status updates. We recommend checking out **Cachinko** and **StartWire** - the former pulls job listings from multiple sources, while the latter gives you guidance and useful tips from job experts.

If you come across any interesting apps, feel free to send your recommendations to editor@thinkdigit.com with the subject "App Watch" and we'll be more than happy to take a look and feature some of your best suggestions.

REASON

3

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Android phones are similar to PCs, so they can also become slow and problematic with age. Here are tips for its maintenance. <http://dgit.in/NBkQNd>

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What's Next @ Norton?

Cyber criminals never sleep. To combat the growing threat of malware, the ceaseless sentinels at Norton are ramping up their assault on the bad guys with a new arsenal of products that are just around the corner

Jayesh Shinde

jayesh.shinde@thinkdigit.com

Every year Symantec organises a press summit where it gives a fairly detailed account about the technologies and products that are currently in Norton's pipeline. Digit was invited and here's what's keeping Symantec busy.



A glimpse of Next @ Norton's busy, presentation-packed day

Social media

To combat the growing menace of Facebook spam and scam campaigns, Norton first described and demonstrated the mechanism and working of four malware attacks: comment-jacking, like-jacking, copy-paste and manual share. While such attacks are thwarted by existing Norton security products (Norton SafeWeb Lite), how does Norton fight malware-infected Facebook apps?

Enter Norton App Advisor which combines the existing database of Norton SafeWeb and pairs it with information from the Facebook app to give users an idea whether that cool new survey app on Facebook is legit or malicious. Facebook and Norton have entered into a partnership for the same.

Mobile protection

If there's one thing for certain, given the explosive growth of smartphones, it's that scammers and hackers are leaving no stone unturned to attack mobile devices. Malware APKs, especially for Android, are going through the roof, making the job

of security software that much tougher. To keep your mobile data secure, private and improve your smartphone's performance, Norton's launching an updated version 2.0 of Norton Mobile Utilities. Features include safeguarding data, boosting battery life, tracking mobile data usage and managing apps easily on your smartphone. That's the promise of Norton Mobile Utilities 2.0, soon to release on Google Play Store.

Everyone loves free Wi-Fi hotspots, right? But what if you're lured unsuspectingly into a fake-but-open Wi-Fi network only to realise your various account logins and passwords are stolen? Norton Hotspot Privacy (an app in the works) will soon solve this problem by securely and privately connecting to any open Wi-Fi network by establishing a one-touch private VPN. Your data over the free Wi-Fi connection is secured through a 128-bit encrypted tunnel which keeps eavesdroppers at bay.

Last but not least, Norton announced the launch of a brand new website (mobilese-

curity.com) dedicated towards safety in the handheld devices era. The website has widgets that gives you access to Norton insights on malware trends and learnings in a fun and interactive way. The site also has periodic updates on best-practices to secure your mobile device.

Project Apollo

Shaun Cooley from Norton Labs painted a picture of a digital world full of smart appliances, not just smart computers. Imagine not just TVs, consoles, media servers, but your fridge, microwave, water purifier and sundry, all having IP addresses and are accessible on the internet. This scenario is fast becoming a reality, at least in the West, and it opens a whole new box of security issues.

Enter Project Apollo, a code-named partnership between Norton and Broadcom, which aims to provide advanced security and protection features at a digitally connected home's gateway router. This is mainly because Broadcom, a world leader in networking solutions, is set to roll out a whole


host of Wi-Fi routers that sport a 1 GHz dual-core ARM chip onboard. Looking at the computing power now available at the router level, Norton plans to provide security features for various vendors. It's a good step to add another level of security to your home network by blocking malware at the gateway level, rather than just at an individual level.

Windows 8

Norton has some new offerings for the Windows 8 OS to be launched in October. Starting with Windows 8, all future Norton desktop and PC products will stop having version numbers and run without reboots. Once installed, they'll get periodic updates.

Moreover, Norton Studio on Windows 8 will work similar to the existing Norton Management system, giving you a quick-glance on all your Norton installations and their status. Norton Private Browser is aimed as a more secure alternative to the native Metro browser. There's also something called Cloud Scanner in the works to monitor and secure all your cloud data.

Norton claims that its security products actually are better than Windows Defender and tried to prove this in a live demo. Promising, but we'll reserve judgement until we see the final product ourselves.

If this year's Next@Norton is any indication, Norton has a lot of products lined up for release months. Stay tuned. 

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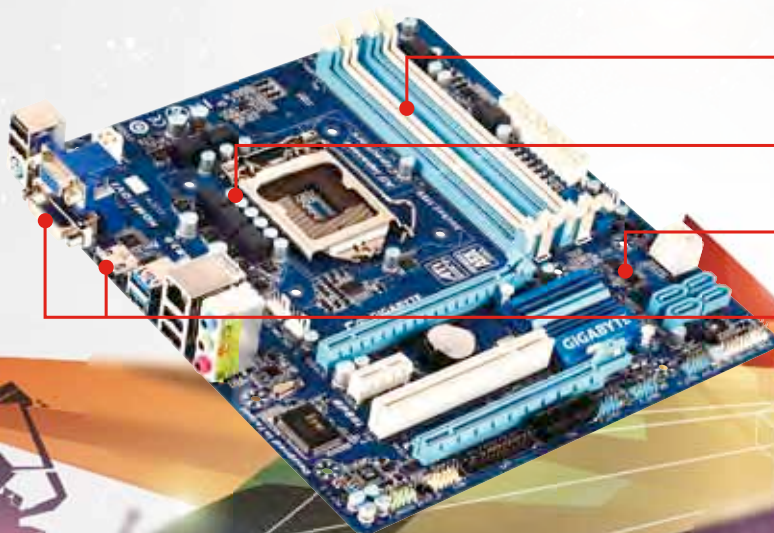
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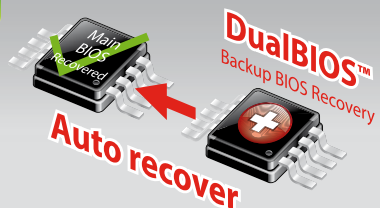
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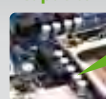
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Study Buddy for Blackberry

IMS announced Study Buddy app for BlackBerry smartphones that helps students to prepare for their competitive exams

**Where's My Water?**

The Mystery Duck developed by Disney provides some interesting puzzles and challenges for iOS gamers

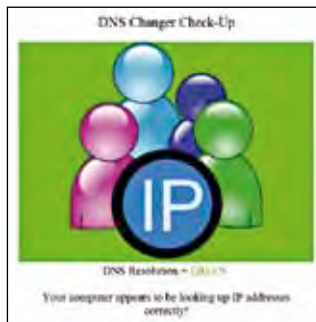
Internet Doomsday: Are you still online?

In the last stage of Operation Ghost Click, the FBI planned to pull the plug and bring down the temporary rogue DNS servers on July 9. As a result, PCs still infected by the DNSChanger virus would be unable to access the Internet. The original doomsday was to fall on March

through infected PCs to fake or unsafe websites, most of them running online scams. There are also reports that the DNSChanger virus also acts as a trojan, allowing perpetrators of the hack attack to gain access to infected PCs.

The group behind the DNSChanger virus is estimated to have infected close to 4 million PCs around the world in 2011, until the FBI shut them down in November. Google issued a general advisory for netizens in May earlier this year to detect and remove DNSChanger from infected PCs. According to the reports by DNS Changer Working Group (DCWG), nearly 300,000 systems were still infected with the virus, with a maximum of over 69,500 such system in the US. Italy with about 26,500 infected systems is at the second place, followed by India (21,300).

Security firms reported no significant outages linked to the DNSChanger virus, as many internet service providers have either implemented a fix or contacted customers with steps to clean their computers. **[i]**



8, but thankfully FBI found a way to delay the date to give users more time to ensure their computer's security.

After gaining access to a host PC, the DNSChanger virus tries to modify the DNS (Domain Name Server) settings, which are essential for Internet access, to send traffic to malicious servers. These poisoned web addresses in turn point traffic generated

Data loss due to glitch at Yahoo!

A system failure in a rental server service operated by a Yahoo! Japan Corp. subsidiary devoured the data of 5,698 firms, including information for their websites. The Osaka based Firstserver Inc.

failed to retrieve the data; it has also lost the backup data. The glitch occurred when the company tried to upgrade its system's security. The system failure was attributed to problems with computer programming and operational procedures. **[i]**

SIM Card Cloning

BSNL and other telecom operators are issuing alerts to their subscribers to beware of suspicious calls. If you get a missed call from a number that starts with +92, #90 or #09, don't show the courtesy to call back. You might be the next victim of SIM card cloning. More than one lakh people have already fallen prey to this 'telecom terror attack'. It will be a smart move to not share your personal information such as bank account details with anyone, moreover not store it on your phone. If

your phone has been cloned, information can be extracted from its memory, and calls be made from your SIM.

Cloning a SIM using a hardware tool that can extract the authentication key from it and copy it to another, is a well known process. But retrieving information from the SIM remotely, is a job for the highly trained and requires very expensive tools. It may even require hacking into the telecom operator's network. Is this the level of safety in our society now? **[i]**

Eyes of the sky: Drones hijacked

Unmanned Aerial Vehicle (UAV), aka drone is an aircraft without a human pilot onboard. It is operated either remotely or autonomously by a computer on the vehicle. US has been actively using drones in its military reconnaissance.

But are the drones fully under the control of authorities? A civilian drone was hijacked in Texas for a USD 1,000 wager. Prof. Todd Humphreys and his grad students at the University of Texas, Austin hacked into the drone's GPS signals before the weary eyes of the DHS (Department of Homeland Security) officials, who bet on the aircraft's security.

The experiment was conducted in the University of Texas stadium, using a technique called 'spoofing', where a signal is sent to the on-board GPS by the hackers, which imi-

tates the one sent by the Ground Control System. The small but powerful red drone soared into the sky, and shortly after, the aircraft veered to the side, making it obvious that it was no longer following its original orders. Then, the drone hurtled toward the ground as if given a self-destruct command and was saved in the last moment.

In October 2011, a virus that keeps a log of what people type was found in computers that pilot the US drones at Creech Air Force Base in Nevada. No harm was done, yet it was running on classified computers.

All this seemingly raised concern about the vulnerabilities of drone, being used both for the military and domestic purposes. Its usage will soon be extended to local police departments, energy companies and farmers looking to feed thirsty crops. **[i]**

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Digital Life

32

Bored of the same 'ol traditional desktop theme? We show you how you can add some spice to your desktop with some nifty utilities

HDTVs Demystified

34

Read our definitive 5-point guide on what all to look for before making that expensive HDTV purchase

1923 Leica 0-series

A hushed silence everyone. There is a Leica in our midst. Leicas are the holy grail of cameras, ask any photographer. Maybe it is the fact that they had, and still have for that matter, some of the best lenses in the world, or maybe it's because each lens and camera is hand-made as far as possible, making them very rare. This precision-engineered piece of work is part of the original Leica 0-series cameras manufactured in 1923. \$3,000,000 is a lot of money to pay for a relic, but what a relic it is!



Stuff we'd love to play with

DeLorean bicycle

Made by the good folks at DeLorean, these premium quality bicycles ooze quality. Made from the best stainless steel available in the market today, this is one sturdy bike. For \$5,500 you get an 11-speed gearbox, front and rear hydraulic disc brakes, luminescent wheel rims and the refined Italian craftsmanship that you expect from a Ferrari. Now if only they could have stuffed a flux-capacitor in there.





Galaxy SIII sells 10 mn

Samsung chief executive's prediction of selling 10 million Galaxy SIII handsets by the end of July has indeed come true, in fact a little earlier

Nokia's losses escalate

The mobile phone giant's losses have deepened to 1.4 billion Euros in the last quarter as it loses its market share to Samsung and Apple

Drool maal

Apollo 17 toolkit

The toolkit of the Gods, well, the astronauts anyway. This particular toolkit has been flown into space, been used on the Apollo 17 missions and has safely returned back to Earth. The complete 16-piece toolkit, comprises items including three jack screws, a 20-inch tether, an adaptable open end wrench, a midget ratchet wrench, socket drivers and many more. Wouldn't you want to spend \$76,000 on a true Space Age tool kit that is guaranteed to work in the most extreme environments? We know we would.



Creation M134 Minigun

\$4,000 gives you a 250 RPM, 16 kg, 12V battery powered, 6-barrelled minigun with a magazine capacity of 1300 rounds. What more could you ask for? This airsoft minigun can tear through a watermelon in a matter of seconds. It's high time you re-enacted that scene from Predator again! This is one device we just can't wait to get our hands on.

The Intimidator Pool Cue

The most expensive pool cue in the world can be yours for just \$150,000. Before you scoff at the price, remember that it took 1862 hours of work and 82 pounds of steel just to create this piece of art. Just imagine walking into a pool club with this veritable battle-axe in your hands. The look on everyone's face? Priceless. It might be a bit cumbersome when trying to hit cue-balls with it, but who cares? You can hack the pool table to pieces if you're displeased.





3D Google Earth on Android

Google launched Google Earth with new 3D imagery for Android at Google's I/O developer conference. <http://dgit.in/LzPV2o>



3 steps to WIN exciting gadgets Polo t-shirts and many other cool prizes! **devworx SAVVY contest**-(<http://dvwrx.in/Savvycontest>). Participate NOW!

PIMP MY DESKTOP

Rainmeter and Conky let you customize your Windows or Linux desktop to your liking

Paanini Navilekar
readersletters@tbinkdigit.com

Computer desktops, apart from being a quick way to access your files and applications, are also an open canvas to show off your creativity. Many desktop customisation tools allow you to display virtually any information right on your desktop in an aesthetic manner. These tools can display important information at a glance, including time, weather updates, unread email count, the currently playing music track or even your to-do list. Here we give you a glimpse into Rainmeter for Windows, and Conky for Linux, two highly versatile tools for customizing your desktop.

Conky on Linux

If you're the kind of person who isn't content with the default desktop provided by your distribution and wants to tweak it to your liking, Conky is a tool that should fit your bill. It is capable of displaying any

type of system information right on your desktop. This can include things like the CPU or memory usage, your current battery state, disk space or even things such as the weather or the currently playing music track. This is because Conky is also capable of displaying the shell output of any script, a powerful feature with endless possibilities. As an example, you can write a short script to display your Twitter stream or the current trending topics for your region. The layout and design of Conky is completely customizable, and in this short tutorial, we'll show you how to set it up and customise it to your liking.

1. Installation: Conky should be available in your distribution's package manager. If you're using Ubuntu or a derivative (Kubuntu, Xubuntu, Lubuntu or even Linux Mint) you can install conky using the command:

```
sudo apt-get install conky
```

Arch Linux users can use the command `sudo pacman -S conky`.

After installation, if you run the command 'Conky' from a terminal, you'll see an instance of Conky on your desktop with some information being displayed. This isn't quite as feature-filled or nice looking as we'd like it to be, so let's go ahead and fix that.



Conky variable showing time, date, and weather info on the desktop

2. Configuration: Conky is controlled by a single configuration file, `.conkyrc`, found in the user's home directory. (If you want to use a different file, you'll have to manually specify the file with its path using `conky -c /path/to/file`.)

The configuration file is divided into two parts. The first (upper) part describes the behaviour, placement and general appearance of your Conky window using variables. Most of the variable names should be self explanatory, you can learn about some of the important ones from the box.

At the bottom, you'll see another section, beginning with the word 'TEXT'. This is where you specify what type of information should be displayed on your Conky setup, including the layout, design and general appearance. You can also include a call to an lua script that can draw widgets, or make Conky display the output of an external script. Any static text that is typed here will appear as it is, and Conky includes a wide range of variables that can display system info. We'll show you some commonly used Conky variables using a simple example, but for a complete list of variables that Conky can display, visit <http://dgit.in/R0N9rU>

In the example above, we've displayed the time, date, weather and some system information like the battery percentage, CPU and memory usage. The Gmail unread count and the weather conditions are displayed via an external (Python)

COMMON CONFIGURATION OPTIONS FOR CONKY

update_interval	Time in seconds before Conky refreshes itself.
alignment	The alignment of the window with respect to the screen. Possible values are top_right, top_left, bottom_right and bottom_left.
gap_x, gap_y	Distance from the edge of the screen in pixels. This distance is measured from the edge specified above.
maximum_width	Maximum width of the window in, measured in pixels.
own_window_type	Describes the behaviour of the window. 'desktop' causes Conky to be treated as any other window, while 'override' causes Conky to appear as a part of the desktop.
own_window_hints	This describes the appearance of Conky. It can take a number of values, separated by a comma. Possible values include undecorate (which removes window decoration like the title bar or the minimize/maximize/close buttons), sticky (which fixes Conky's position on the screen), skip_taskbar (which prevents Conky from showing up on the taskbar) and skip_pager (which prevents Conky from showing up as a preview on your workspace thumbnails)



Google Docs Offline

No network to access Google Docs? Don't worry! Now you can access Google Docs offline from any device. <http://dgit.in/OIFzEV>

Apple Ads mint more

In a report by Opera Software, Ads that run on Apple's iPhone command significantly higher prices than Android and way higher than any other platform

Feature

script. We've included all these scripts (and many more Conky setups) in last month's DVD.

3. Customisation

1. All variables are preceded by a \$ sign, and usually enclosed in curly brackets {}. Any parameters are included within the brackets itself. For e.g. the `${time}` variable comes with many parameters which can help you display the time in a variety of ways. `${time %I:%M %p}` will display the time in the format shown in the image. Here, `%I` (note that the 'I' is capitalized) indicates the current hour in the 12-hour format, `%M` shows us the minutes, and `%p` outputs AM/PM according to the time of the day. The colon (:) is displayed as is, since it doesn't form part of the variable or its parameters.
2. `${voffset x}` provides vertical spacing while `${offset x}` provides horizontal spacing, where the 'x' is replaced by a number, indicating the spacing in pixels. Similarly, `${alignc}` and `${alignr}` will center-align or right-align the text respectively.
3. `${color xxxxxx}` indicates the colour of the text, where the xxxxxx is the hexadecimal equivalent of the colour. Fonts, sizes and styles can be changed using the `${font}` variable. For a complete list of all the different formatting options, visit the Conky variables page on <http://dgit.in/RON9rU>
4. System information such as CPU, memory and battery usage can be accessed via the `${cpu}`, `${memperc}` and `${battery_percent}` variables. You can specify how the output to be displayed (either as a percentage, as a



Ubuntu desktop customised using Conky



Omnimo is a Rainmeter theme that brings the Metro interface to Windows 7

- bar or a graph) along with additional parameters for the number of CPU cores to monitor.
5. You can make Conky display the shell output of any script by using the `${exec}` command followed by the complete path to the script. Optionally, you can make the script repeat itself at a set interval using `${execi}`.
- These basics should be enough to get you started. If you're looking for ideas, here are some fairly minimal conky setups that you can refer to. (All these configuration files can be found in the DVD)

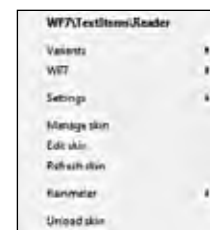
Rainmeter on Windows

Windows users can use the powerful desktop customisation tool 'Rainmeter' to add interactive widgets and panels that can

display system info as well as information from the web, such as your Gmail unread email count or the weather.

1. Installation: Download Rainmeter from <http://dgit.in/NQwF19> and install it on your computer. When you start the tool, you'll be presented with a few default themes and widgets to choose from, but the Rainmeter community is large, and there are literally hundreds of different theme combinations you can try out to find what you're looking for. Since the configuration and customisation options are nearly endless, it can prove to be slightly overwhelming for the first-time user. Here we'll introduce you to a few basic concepts and terms used by Rainmeter.

2. Configuration: Every widget or gadget that you see in Rainmeter is called a 'skin'. The complete set of skins that share certain visual elements is called a 'theme'. Naturally, each theme comes with its own set of skins that can be customized to your liking. Right-clicking on a skin will open a pop up menu that lets you edit



Customising a Skin

the existing skin or add additional skins belonging to the same theme. Note that you can have skins from multiple themes on your desktop at the same time.

Resources

Rainmeter's Open Source nature allows for nearly endless customisation options. Once you've got the hang of how to add, remove and customise Rainmeter skins, you can take a look at some of the best resources for Rainmeter skins and themes. These will not only provide you with a handful of skins and themes, but will also give you some ideas on how you can arrange several skins to achieve a look that suits your style.

1. DeviantArt : <http://dgit.in/LGYDOI>
2. Customize.org : <http://dgit.in/NhfXvg>
3. Lifehacker Desktop Show and Tell : <http://dgit.in/MbXFZz>

SKIN CUSTOMIZATION OPTIONS

Variants	Many skins come with alternative layouts that you can switch between.
Name of the theme	The second entry is the name of theme. This gives you a full list of the skins that belong to that theme. You can add new skins to your desktop from here.
Settings	You can control certain visual aspects of the skin like its position, transparency and behaviour using this option.
Manage Skin	This gives you an overview of the theme you're using with all the active skins.
Edit Skin	This opens the configuration file for the skin a text editor. Editing a skin manually is slightly difficult, but you're unlikely to ever need this option.
Rainmeter	Displays general information about rainmeter and allows you to switch between installed themes.

Liquid Metal's Elasticity

An experiment that compares the elasticity of a ball bearing made out of liquid metal with steel and titanium <http://dgit.in/NNX01X>



New Twitter for Blackberry

When you expand a Tweet to see the details view, you can enjoy images from pic.twitter.com in full resolution and RIM maps for geolocated tweets

HDTVs: IN BLACK AND WHITE

It is not always black and white with HDTVs. Here are five things you should look out for

Vishal Mathur

vishal.mathur@thinkdigit.com

It is the so-called holy trinity – LEDs, Plasmas and LCDs. But is it? With most other devices, you have a fair idea of what the performance might be, after one look at the spec sheet. However, with a television, you really have no generalization in terms of specifications and hardware. While technically you may compare between two LED televisions, the resulting performance may be vastly different. As a consumer, this can become quite inundating on the shop floor, but you need to keep a few things in mind before splurging your cash on the most expensive HDTV.

LED and LCD – Are they really that different?

The answer is a resounding NO! In a nutshell, LED TVs are essentially LCD TVs, but with LED backlighting instead of the fluorescent backlighting in LCDs. Even now, there are two types of LED TVs – with EDGE backlighting or the Full Array (also known as Full LED). With the former, what you get is a line of LEDs placed on the outside edge of the panel, allowing the TVs to be slimmer than ever. You can easily identify this

kind of a TV by looking at it when it is switched on and not connected to any AV source. You will see “spotlighting” around the edges of the panel. While this TV may be slim, the black levels tend to be slightly less deep than full LEDs and the edges seem brighter than the centre of the display.

With Full Array, a bunch of LEDs are placed behind the screen, in multiple rows, leading to more even lighting across the panel. Another advantage is that manufacturers can deploy local dimming for individual LEDs, leading to deeper details in scenes. Even Edge LEDs are now using the local dimming feature, but using diffusers and guides to attempt at having a similar effect as actual dimming. From our experience, local dimming works well only on full LEDs, while the attempt on edge LED televisions mostly leads to uneven brightness, usually known as the halo effect - you see block of leaking light around a brightly lit object in the midst of black colour.

Contrast Ratios – Not always black and white

Let us start with two examples. The Bravia HX750 series has an actual contrast ratio of 1129:1, while the HX925 has a contrast ratio of 963:1. To put this in perspective, the HX925 is the most expensive HDTV series on the entire Bravia range

from Sony, while the HX750 is two notches below that. To put it simply, the adage that the more expensive the TV, the better the performance isn't necessarily true. And equally, take the contrast ratio numbers thrown around by TV manufacturers with a pinch of salt. We have a table of some of the TVs that we have tested (40/42-inches and above), with the actual contrast ratios, as tested. Incidentally, the most inexpensive television range in this entire list has the best contrast ratio of all. Let us specify that we use the Spyder 3 Elite benchmark, a colorimeter tool along with its software, to derive the actual scores. Along the way, we ensure that the contrast, brightness, backlight, advanced contrast and noise reduction settings are all equalized across all televisions to level the playing field. All televisions are tested in the exact same environment – lighting, room layout etc., so that all factors remain the same. Scores between 900 and 1200 and above in our benchmark tests indicate very good performance, with deep blacks.

Motion control – not the best attempt at making TV a physical activity!

This has the demographic completely divided into two camps. Let us look at the very basic tasks first – changing

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Find great graphics for your PC at www.nvidia.in/geforce

1 Compared to Intel HD 2500 integrated graphics.

2 Blu-ray 3D playback requires the purchase of a compatible software player from CyberLink, ArcSoft, Corel, or Sonic.
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Google launches Gmail SMS

Google has rolled out a new service in Africa that lets Gmail users send and receive emails using the built-in SMS features of their mobile phones

Sparrow acquired by Google

Popular iOS and Mac email client Sparrow was acquired by Google to work on its Gmail team. No new versions of the app are likely to be released

Sony Bravia HX925	963:1	Starts @ ₹1,53,900
Sony Bravia HX750	1129:1	Starts @ ₹83,900
LG LW6500 Cinema 3D	700:1	Starts @ ₹1,04,900
Samsung Series 8 LED Smart TV	983:1	Starts @ ₹1,58,000
Panasonic Smart Viera DT50K	446:1	Starts @ ₹1,33,900

HDTVs: Actual contrast ratios

channels, controlling volume, switching between sources, navigating between the menus and tweaking settings, etc. For this, motion-sensitive remotes are just a pain to use. Depending on how fluent you have become with the entire process, it will take you quite a while to do the same task than it would if you simply picked up the conventional remote and tapped the buttons.

However, motion-sensitive remotes have a huge advantage if you are using the TV for web browsing, social networking or playing games installed on the TV. Angry Birds will work well with a motion remote, something that the conventional remote cannot handle.

Clear Motion – More isn't always better

Please have a look at the table below, before we explain in detail, what we will talk about. All these figures indicate the motive to make fast moving visuals as clear as possible, for your viewing pleasure. And we appreciate this initiative, and support it wholeheartedly. However, there is a fundamental flaw in this feature, and not necessarily its own. Let us illustrate this by multiple scenarios.

Watching blu-ray or full HD uncompressed content: This is where you should probably have the motion flow settings set to max. Not only will any fast motion scenes look a lot smoother than otherwise, but with the panel capabilities permitting, there won't be any issues like screen tear etc., largely because the content is the uncompressed type. For the movie buffs, this is probably worth

where between the two extremes is this scenario, which may work well with motion settings, but equally make the reproduced visuals look bad. Depends on the amount of compression that particular file has been subjected to, and artefacts may be introduced into the image, due to interpolation.



Clear Motion

Watching TV (DTH, Cable etc.): This is where this settings needs to be considerably toned down. Due to the extremely compressed nature of the content broadcast by cable and DTH operators, there will be issues such as screen tear. The clearest example of this is in a cricket match, when the ball running towards the boundary. With motion settings set to their max, you will see three balls running towards the boundary – with the actual one being in the centre, and shadow ones preceding and succeeding it. Turn this setting to Standard / Low / Clear, and the issue goes away. The logic that is brandished around on the shop floor is that with this feature, all visuals will look more fluid and smooth, but as we

have explained, that isn't always the case.

3D – Which one to get?

Well, 3D isn't as simple as some people think

the money they have spent.

Watching compressed HD videos, DVDs or even up-scaled HD content: Some-



Passive 3D glasses



Active 3D glasses

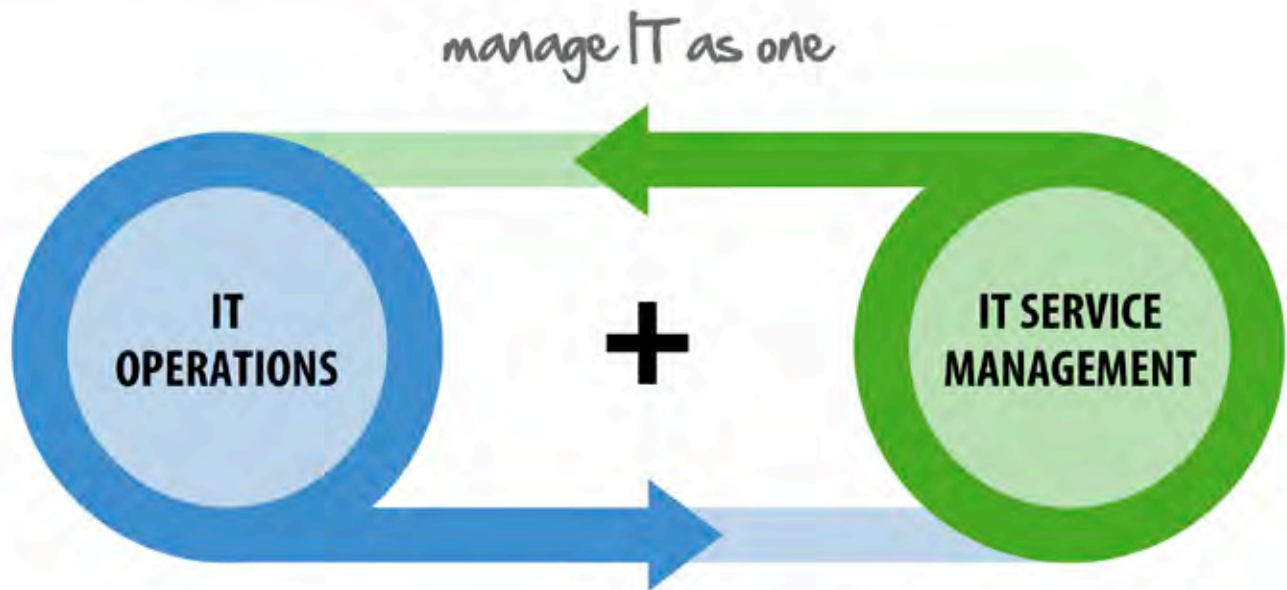
it is. Active 3D seems to be the most popular one around, until LG brought in the Cinema 3D range with the passive 3D technology, technically called the film type patterned retarder.

The way active 3D works is that the battery-operated glasses rely on signals from the emitter in the TV on when to close the shutter for which eye. This rapid opening and closing of the shutter blocks content from an individual eye at a time. The result isn't pretty – the glasses are heavy and the eyes tend to feel the strain after prolonged viewing. Also, the sweet spot for this type of technology is quite limited – essentially a straight line, with only little leeway either side, which means not more than a couple of people can sit and actually enjoy 3D on a 42 to 46-inch TV. Passive 3D, on the other hand, uses much lighter polarized glasses. The TV doesn't have a transmitter, but polarizes each line of pixels into even and odd. The odd lines will be visible to the left eye, and the even numbered lines to the right eye. Since there is no active shutter, the glasses can be lighter and more comfortable for wearing for longer durations. Also, the viewing angles are wider than with Active 3D, which makes this a better deal for family viewing scenarios. Also there is less strain on the eyes. The only drawback is that with polarized glasses, you only get a maximum resolution of 1920 x 540 pixels, due to the blocking of some lines. So, the next time you go to buy a 3D TV, don't let the guy on the shop floor tell you all 3D TVs are the same.

Sony Bravia HX925	Motionflow XR800
Sony Bravia HX750	Motionflow XR400
LG LW6500	Motion Clarity 800
Samsung Series 8 LED Smart TV	ClearMotion 800

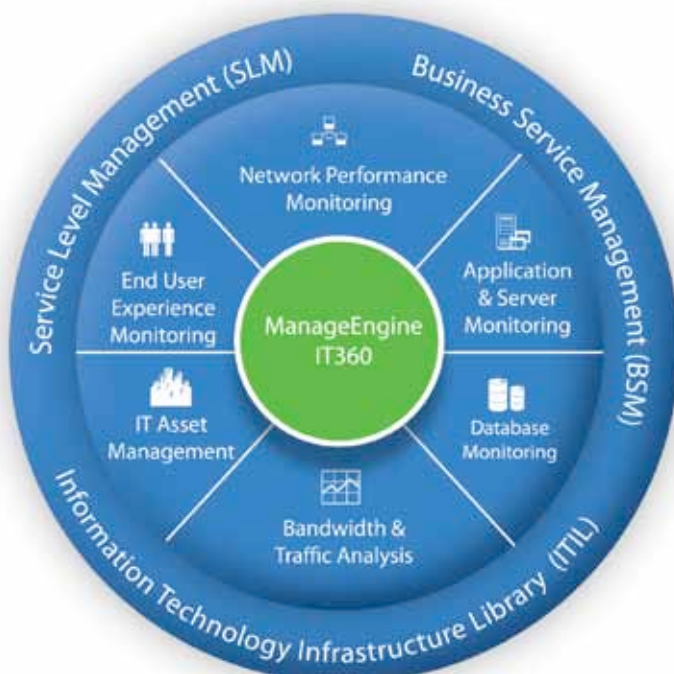
Fast Visual engines: What is on offer

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DOES ANYONE KNOW PENGUIN CPR?

How you killed Linux, and other non-fiction

Abhishek Choudhary,
readersletters@thinkdigit.com

Few concepts in the digital world can hold a candle against open source, when it comes to public sentiment. However, if the real world teaches you one thing, it is that sentiment doesn't always get you great success. Linux, when it was born, created this huge buzz. After all, who wouldn't love something (or someone) that thumbed its nose at the big boys. Even if we use their products, most of us seem to hate large corporations. There's just something irritating about hearing money figures in billions, while you slog like a dog to afford what little standard of living you can afford. That's what Linux was, a breath of fresh air, someone wanting to give you something for free, which other companies were charging an arm and a leg for.

The free ride

The biggest pull to Linux was the fact that it was free – there's no two ways about that. However, the free that the developers were aiming for was the free that's bereft of ownership, whilst all we users saw was free as in zero cost. The disconnect in the driving force between the customer and the supplier is perhaps why Linux isn't the biggest OS in the world today. Nobody imagined

that a group of amateur hackers, however skilled they might have been, could produce a full fledged multi-tasking operating system, that could hold its own against the glitzy offerings from the big corporations. Linus Torvalds and his men did much more than that. They built the entire kernel from scratch, somehow bypassing Brooks' Law (see box), and also provided an admirable amount of supporting resources.

Why free rides go empty sometimes

A lot (and we mean A LOT) of hard work went into making Linux, however, as has been admitted by some original team members, it was accompanied by minimal planning. The structure to Linux was flawed in two very important ways. First, subsequent improvements to the product would be difficult. Secondly, because of the lack of a



defined methodology and ownership, the idea couldn't be sold. One aspect of Linux is that there are just too many distros. Just when you're getting used to one, another one comes and steals some of its thunder. It makes you want to try something new to not be left behind in the Linux world, which ensures that the average user never really experiences the comfort levels that one achieves when they've been using a product for a long time. A second problem is that when something starts off as essentially free, more creative ways need to be found to fund the project. Donations are usually the way to go, but with most rich people getting that way because of shrewd business acumen, just giving away money to a project is a lot hard to do. Plus, there're millions of starving kids in Africa who need the money for food, not computers!

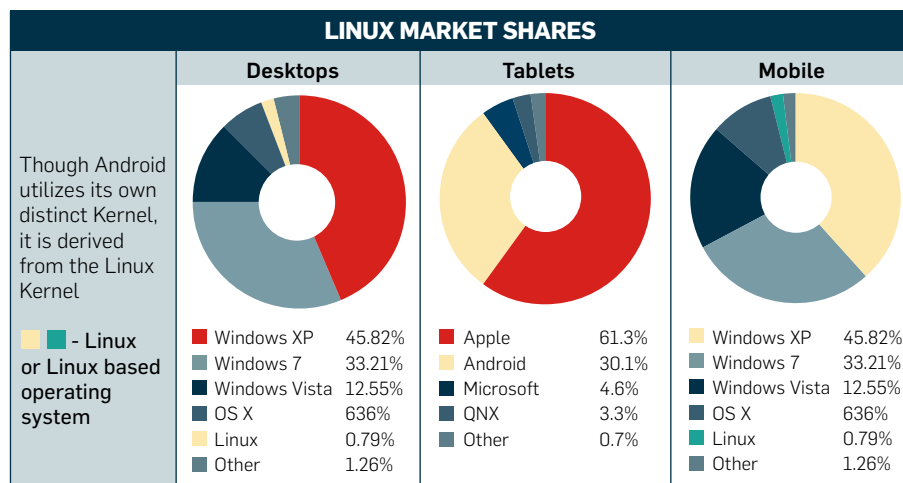
Years ago, when the movement was starting to gather momentum, Netscape becoming open source was called "a shot that was heard round the world", and sadly, current iterations of OSS seem to be following the same path.

The torch bearer

Linux has been the poster-boy for the Open Source movement for many years now, but it seems to be losing steam quickly. That is, if you count only the desktop versions, and no derivatives. Android, for instance is a derivative that holds a lot of promise, and is currently the most talked about Open Source project out there. One would expect that this relationship would be mutually beneficial, and it was indeed supposed to be. However, we now see that Android, with each new release is getting farther and farther away from its native Linux base, and the developments that the Android community is trying to give back are hardly being implemented into the actual development of the kernel. That's the problem with being a torch bearer, at the start of a competition, you get your 15 minutes of fame, but in the end you're not much more than a has-been athlete, doomed to sit in the stands watching the real stars compete for the laurels...

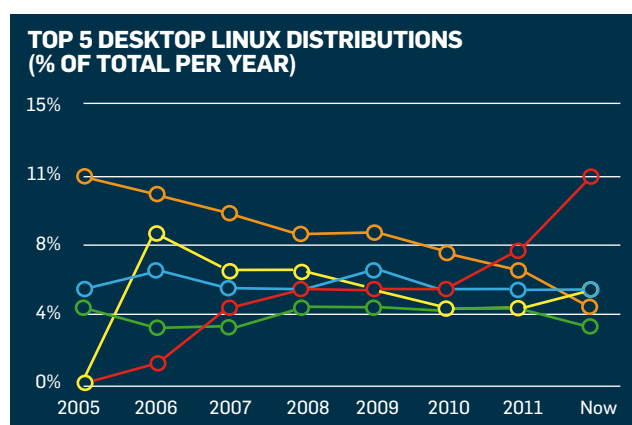
Now what?

While almost everybody with a basic knowledge of computers is aware of the existence of Linux, and Open Source in general, only a handful have gotten any

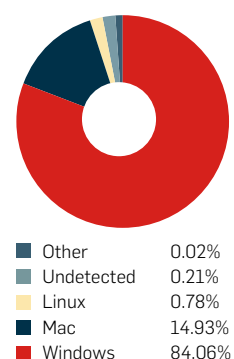


Sources: Android, Statcounter, Nielsen & Zdnnet

Data by MBAOnline.com



Data source: DistroWatch's Page Hit Ranking (Nov. 23, 2011). www.pingdom.com



Average adoption till date according to Statowl

BROOKS' LAW

Software development is said to hinge on Brooks' Law, which states that as the number of programmers rises linearly, the amount of work done will scale up by the same proportion, but the number of bugs rises by a square function, i.e., if number of people 'X' on a project rises, then the assignment completes X times faster, but the number of bugs rises by X^2 .

INTRA DISTRO COMPETITION

The constant chopping and changing of distros, with freakishly frequent updates, and competition amongst each other (while intended as a good thing) means that the world does not see a single 'torchbearer', and because a lot of these are not mutually inter-compatible, proper open-source support becomes a pain in the ass.

real exposure, let alone become regular users. Plus, we're an impatient bunch these days. We can't wait for a web page to load, let alone spend time figuring stuff out.

Thanks to Apple and Google, we need everything now, this instant, and it should work like a dream, right out of the box. What prayer does an OS like Linux have in such a world of impatience? Can a bunch of code hackers really get together and do something about the human condition? We already suspect that many companies still support Linux for brownie points. Besides, the Linux community may be small, but is certainly very vocal, and no one wants to clutter up the Internet with negativity about their company. Of course, we're talking Linux here, not Open Source in general... Thanks to projects such as Android, the OSS mantra will live on, for a very long time indeed. We certainly hope so, as avid OSS enthusiasts. However, given the stats we've seen around us over the past few years, it's impossible to ignore the elephant in the corner of the funeral home. Although it is one of the most famous parts of a movement we're all eternally grateful for, and will support for a long as we are able, we do have to face facts. Linux is dying, and we're the ones who are killing it.



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*Pen drive image is just for illustration, actual pen drive shape may vary | MRP of pen drive may vary, but you will get 8 GB pen drive

KARBONN KT-21

ENJOY ENRICHING TELEVISION, SURF MAIL AND CHAT UNLIMITED WITH FRIENDS

India is on a path of mobile telecom revolution where affordable budget phones with smart features have started coming out in big numbers in the market and feeding the rising demand of the new age consumers. While the market is seeing the resurgent competition churning out advanced product ranges, Karbonn Mobiles has been steadily feeding the consumers with a range of affordable yet technologically advanced products.

Thus introduced to the Indian markets is the Karbonn KT21 Express, which being a feature rich phone boasts of features like Dual SIM capabilities along with revolutionary offerings of Karbonn's Smart Mail (Push Mail) application and the NexgTV app which allows users to watch 50+ Live TV channels on the go.

FEATURES:

The Karbonn KT21 comes with a 7.1-cm QVGA Capacitive Touch screen display with a resolution of 240x320 pixels, which is at par with whatever the competition has to offer. It also boasts of a traditional keypad below the display giving users the benefit of both a touch-and-type environment bringing the goodness of touch input and physical keyboard typing together.

The Karbonn KT21 Express comes with a 1000 mAh battery which claiming a standby time of 250 hours can take care of all mobile needs and can run without charging for days at end. From the hardware perspective, the Karbonn KT21 Express boasts of an expandable memory up to 16GB via microSD card which can provide decent space to store all your music, videos and photos. The back of the device sports a 3.2MP camera, which is great for instantly capturing those precious moments which may come up unnoticed. Courtesy the inbuilt flash, one can capture good quality images even when the lighting conditions aren't at their best.

Boasting of Dual SIM Capabilities, the Karbonn KT-21 powers two GSM numbers wherein users can avail the usability of two numbers simultaneously on one device. Perfect for segregating professional and personal contacts and calling, the KT-21 supports dual standby which helps effectively manage personal and professional life.

Another USP of the device is the Smart Mail (Push Mail) service which enables users to access their emails in real time. On the Karbonn KT-21, users can read and reply emails along with viewing, saving and attaching attachments and can also configure popular email accounts like Gmail, Yahoo, Hotmail, etc.

The Smart Mail (Push Mail) service also brings in the functionality of the Karbonn Instant Messenger (KIM) on the KT-21, which being a



PIN-based messenger service allows real-time text chatting with friends on the device. Not to be left behind, users can also easily configure GTalk and Facebook accounts on their KT-21 phone, to chat with friends & buddies on the go.

APP PLAZA:

The Karbonn KT-21 brings in an exclusive 'App Plaza'- Karbonn's own world of apps, which provides the users access to a lot of popular apps such as Facebook, YouTube, Yahoo Messenger, Yahoo News and host of other Yahoo! apps. The KT-21 users also get an exclusive access to the 'NexgTV' app which gives users the option to watch 50+ Live TV channels ranging from movies, music, news and more, on the go.

PROXIMITY AND MOTION SENSOR

To give your device maximum life, the phone comes with a proximity sensor. Hold the device to your ear and the display goes off; and pull it away and the display comes on. This feature ensuring safety against accidental touch during calls helps save you from embarrassing situations like wrong button dialing,

call end during active call and unwanted button press.

Also the Karbonn KT-21 brings in a motion sensor which adds to the mobile experience and can be used in funky ways. Users can flip through and easily change songs in the Music Player by shaking the device.

OTHER FEATURES

This budget phone comes with a host of other revolutionary features which makes it a hit choice of consumers seeking a perfect combination of value-for-money and technology. Feature which make the phone stand-out from the competition include Modem to tag data services, Video Wallpapers which lets one put up their favourite videos as idle screen wallpapers, PC Sync for seamless integration between the computer and phone, Phonebook and SMS backup, and much more.

SUMMARY:

The Karbonn KT21 Express is competitively priced at Rs. 4,500, which makes it the perfect choice for consumers looking for a budget phone which offers the entire feature set of a high-end smartphone. A great value-for-money product offering, the Karbonn KT-21 Express hits the sweet spot perfectly and is all set to be a winner from the Karbonn Mobiles stable in times to come.

The name's Doe, John Doe

My rise to fame, and other stories

I am no one. Sure, I have a job, a family, friends, maybe even some enemies, but in the grand scheme of things, I really am no one. I'm not famous, rich or poor, neither a genius nor an idiot. If you met me today, you'd be hard pressed to remember my name tomorrow, and would certainly forget all about me a week from now. I'm just another unimportant and very forgettable human who means nothing to you, or 99,999,999 per cent of the world for that matter. All of that's changed now, though. Suddenly, I've become one of the most important people to have ever existed, and I must say, all this fame is rather disconcerting, uncalled for, and bordering on the ridiculous.

I really don't have much of a clue as to what changed all of a sudden. One day I was just leading my rather ordinary existence, and the next, I have warrants for my arrest, court orders accusing me of causing billions of dollars of losses, politicians baying for my head, random people defending me in their own weird ways, and the media circus that follows everywhere is hardly something that needs explaining... I have no real clue why it happened.

The beginning

I figure, maybe if I share my life with you, you could help me figure out where I went wrong. I was born in a country called India. It has both remarkable achievements as well as a boatload of problems. End result? Things are strictly average. I consider myself lucky though. I was one of the people who was born in time to see the

WATCH NOW

Arun Jaitley, Leader of Opposition, Rajya Sabha critiques the Intermediaries Rules. Full video: <http://goo.gl/Baprh>

great Internet develop into what it is today. Generation I, a magazine I read had called it once. Every generation after me (Generation O) will have already had the internet, with great speeds, and services such as Google just always being there... Of course, I'm not special, again, because I have this in common with a billion other people, at the very least.

And that's about all that is of note about my life. Until pretty recently, that is.

Recently

Up until a few years ago, life was good. I was able to live the life of the average Indian. I studied hard, like every other rat running the race. I worked the same way. I still couldn't afford everything I needed – never through school, college or even my initial work life. Thankfully, in India, there were so many like me that I was able to pirate software to ensure that I was in touch with global standards, or download music and movies so that I could keep in touch with global culture. I couldn't afford to be left behind, could I? Did I know it was wrong to pirate? Sure. But I always figured two things. First, there was no way I could afford to buy software personally, but I knew when I got a job, my company would be using paid-for versions for me. "All I'm doing is getting a head start," I told myself. Second, I pirated to try things. Would you pay money to go for a concert or a movie if you'd never heard of the actors or band?

I could sleep at night, like a baby with a clear conscience, even after setting my torrents to download – a ritual developed because of my night-unlimited net connection plan.

Discovering freedom

Even more recently, however, the Internet changed again. Web 2.0 the gurus called

it, but to me it just seemed like the natural evolution of a technology – becoming more personal, more about people, and more popular. Blogging changed a lot, because everyone was able to have a voice. Today that's Facebook, or your social networking platform of choice, and it was for me too. Of course I didn't make any earth shattering posts anywhere, but I did voice my opinion quite a few times, and learnt a lot by reading opinions from a million other people in the years that followed. Primarily, I learnt that there are a heck of a lot of people out there who think just like me, act just like me, have the same morals, break the same rules, and are from all over the world. Also, John Doe is a much more common name than I first thought! Things were going great. Life

INTERMEDIARIES GUIDELINES

The Information Technology (Intermediaries Guidelines) Rules 2011 were added to the IT Act 2000. These rules allow the government to pull up any website that hosts "objectionable" content via the intermediaries (website, domain registrar, blog owner and so on). It gives anyone the right to send "content removal notice" to an intermediary, asking it to be removed within 36 hours. Terms describing such content – grossly harmful, harassing, blasphemous, defamatory, obscene – are those that are open to interpretation. So, Facebook can be hauled up for derogatory content or pages on its site. It's so ridiculous, that even if you own a blog and someone else posts a derogatory comment, you can be pulled up. In March this year, Rajya Sabha MP, P. Rajeev, had moved a motion calling for the annulment of the intermediaries rules sometime in April. This motion, as would be expected, was defeated by a voice vote.

was never dull, any aspect of culture was easily available to everyone, anywhere. I was an idiot to think things would stay that way forever.

Pandora's box

The biggest problem that the internet caused was to expose people to other people. Ideas are contagious, (aren't they?) and ignorance really is bliss, because as long as people were unable to see how the rest of the world lives, everything was fine and dandy. Soon internationally accepted principles of right and wrong formed part of our global conscience. Excreta and fan were destined to meet. Governments were overthrown, coups were coordinated using social media, and it didn't matter if CNN or BBC were able to cover it or not, Twitter and Facebook were good enough.

Governments were shaken, and not just dictatorships and monarchies, but all governments. How dare these young upstarts of average intelligence come together and start deciding what's right for them? Why, that's just not the democratic way at all, is it? Next they'll want to start choosing governments, or worse, actually want to vote... the rascals!

Crossing the line

Here in my country we claim to be a democracy, yet dare you voice your opinion against someone in power, and the wrath of a fanatical following of thugs will ensure that you are silenced. However, the Internet was always a safe place to vent. It was all anonymous, and quite safe, until social networking changed all that of course. I suppose my biggest mistake was to use my

LEGALESE

"No specific section in the IT Act entitles a person to sue the government or ISPs for blocking access to legal content. In such cases, however, freedom of speech and expression is our fundamental right guaranteed under Art.19 of the Constitution of India and it is our constitutional right to seek legal redress for its protection by approaching the court."

Cyberlaw expert Karnika Seth

"If access is locked to my content on the web (say by blocking sites such as Vimeo or Blogspot for instance), I would file an appeal against the John Doe order in the higher court or to the division bench of High court if earlier order has been passed by single bench of the same High court. These provisions are there for any citizen in Procedural Law of India. The IT Act, 2000 need not be invoked."

Advocate Prashant Mali, President Cyber Law Consulting.


full name in my email address, and also put my actual details into my accounts. Who would have thought that forwarding a simple cartoon would get me thrown in jail, slapped, humiliated and more. Next it was this Chennai-based company called Copyrights Labs that got the Madras High Court to pass an order using my name! They actually wanted a "John Doe" order to stop just about anyone from accessing video hosting

DID YOU KNOW?

John Doe order was a common name that was seen across all sections of the media couple of months back. This article tries to explain it. <http://goo.gl/ICCiF>

web sites, file sharing sites, and more. Why? Because they were releasing a couple of movies that they wanted to eke every last penny of profit out of. In the end it's all about the money, isn't it? I'm just a nobody, as I said in the start, and I don't have the might to stand in court against big companies. Thankfully, some good samaritans appealed on my behalf, and the whole country doesn't have to suffer for my torrent fetish. ISPs are only supposed to block actual URLs where the content is located, and not entire domains themselves. However, I still cannot get into some video sites from some cities / ISPs. That will change soon, I hope.

Now what?

Now nothing, I wait and watch. According to Google, the Government of India has made over 2000 requests to pull down content that it considers defamatory, inciting violence, or just otherwise unlawful. Since I'm not privy to the details of the requests, I don't know how many of these were child pornography or terrorism propaganda. Not a lot I suspect. I soon learnt about Anonymous, a hacker / wannabe combine that threatens governments who do not toe the line of democracy. Block torrent sites, will you? There you go, insignificant-government-site-that-no-one-visits. You're hacked! Hah! We pwned u, lolz! Then there was an actual physical meeting / protest against the government scheduled in major cities. I thought hundreds, maybe thousands would show up... only 30 did. All of them young, some speaking to the media and proclaiming that it was their right to download movies! The shame! Look, I'm a pirate, and as I mentioned earlier, I truly believe that it helps more than it hurts... but I'm not dumb enough to demand my right to do something illegal! Besides, did anyone really stop downloading anything during the short time that sites were blocked? I also don't get the hactivism thing. To protest against a law that you disagree with by breaking a completely different law seems like breaking down statues in parks because a pigeon did its business on you when you were a kid. If we hate being blocked, find ways around it and publicise, or run proxies that help the general public bypass the blocks... that would be cool in my opinion. To my limited intellect, I just don't see anyone with the correct answers. Oh well, maybe one of you reading this will have some better ideas... let me know! 

INTERNET CENSORSHIP CASES, A TIMELINE

2003	Acting on CERT-In recommendations, the government asked all ISPs to block the Yahoo! Groups' webpage of a Khasi militant group. Instead the ISPs ended up blocking Yahoo! Groups itself.
2006	Blogger, Geocities and Typepad domains were blocked by ISPs instead of blocking objectionable content.
2007	Orkut formed a pact with the Cyber Crime Cell not only to block defamatory content but also share IP addresses from where objectionable content was being produced.
2009	Savitabhabhi.com – an adult comic website was blocked by the government.
2011	Several file-hosting websites were blocked by ISPs based on a John Doe order from a Delhi court.
2012	Cartoonsagainstcorruption.com, a satirical cartoon website was taken down. Sites such as Vimeo, Dailymotion and several torrents sites were blocked.

Linux gaming is booming

Now the last Windows bastion is falling. The penguin can game!

Kshitij Sobti

readersletters@thinkdigit.com

Linux has never been a popular gaming platform, and for some very good reasons. There are few commercial games on Linux, next to no AAA titles, poor open source drivers support and a community that can often be hostile to anything that is proprietary or closed. Do you need more? It's hard enough for Linux to be a gaming platform when there are no games for it; add to that the lack of compatibility between even major distributions, the sheer number of combinations of package formats, window managers, desktop environments, config variables and you know there's going to be trouble for games on Linux. Then there is the general impression that Linux users are a bunch of free-loaders unwilling to pay for a "proper" OS, and are unlikely to pay for anything else. What you have is the perfect recipe to keep away companies from catering to the platform. There are clearly a lot of problems when it comes to gaming on Linux, but that isn't why we wrote this article.

Voting with wallets

Everything, in the end, comes down to economics. If there are enough people willing to pay for it, then someone is likely to make it. Recent events have busted the myths that Linux users won't pay for software. We speak of course of the Humble Bundles and Kickstarter. For those unfamiliar with what we are talking about — how is it living under that giant rock? — here is a little intro: The Humble Bundles are collections of (usually Indie) games that are offered at a pay what you

want model for a limited amount of time. The requirements of each bundle are that the games must run on Windows, OSX and Linux and be DRM free. Also, part of the money — you decide how much — goes to charity.

In the thirteen bundles so far, one trend has emerged; Linux users pay on average more than Windows or Mac users, often by a healthy margin. The latest bundle saw Linux users contributing an average of \$12.50, while for Mac and Windows users the average was \$9.99 and \$8.53 respectively. Over 60 games have been part of Humble Bundles now, and sure, some of them were already available for Linux, but most have been ported to Linux just because of this. And they have all been high quality Indie games.

Kickstarter is another phenomenon, which connects people who have ideas

with people willing to pay for them. If you have an idea you need funding for, post it on Kickstarter, and if people like it they will back your project in return for rewards. You set a goal for how much you need and if it is met, your backers get charged and you get all the money. If your goal is missed, even by a single dollar, you get nothing, and the backers pay nothing. Recently there have been a number of high-profile successes on Kickstarter, and most have at least one thing in common. Yes, you guessed it right, they're all named after Roman gods. Err, sorry, those are the planets. Most of those games are coming for Linux. Here's a list of some of the games (and how much asked for and raised) coming for Linux soon:

- Double Fine Adventure (asked: \$400,000, got: \$3.3 million)
- Wasteland 2 (asked: \$900,000, got: \$2.9 million)
- Shadowrun Returns (asked: \$400,000, got: \$1.8 million)
- The Banner Sage (asked: \$100,000 got: \$723,886)
- The Leisure Suit Larry remake (asked: \$500,000, got: \$655,182)
- Carmageddon (asked: \$400,000, got: \$625,143)

These are just some of the ones that made the most money. There are other smaller games such as Word Realms, Drifter, Nekro, and many others that have included Linux support. It isn't just some noble venture, the backers asked for it, they made it a condition for giving more money or for giving money at all. They voted with their wallets and results were achieved.

New avenues

App stores are a "recent" trend, but Linux has had something similar for a very long



Desura game centre



Another good game in this ecosystem: Trine2

time. Most Linux distros have software manager that lets them search for install and uninstall apps. While this system isn't equipped to handle commercial applications, we now have a number of commercial avenues for Linux software. The Ubuntu Software Centre, for example, is well integrated with the OS, and offers hundreds of free and paid games. Gameolith started as a web-based Linux games store but is not multi-platform, and offers you a copy of the game for all platforms — including Android — with a single purchase.

The biggest Linux game store though is the Steam-like Desura, which supports Windows, Linux and Mac. It may not have the largest collection of games, but its selection of Indie games and mods is excellent. It offers free mods for games it doesn't even sell. They recently made their client open source, so chances are at least some Linux distros will offer it, or come with it installed.

Finally, and most importantly we have Steam. Yes, Steam is coming to Linux, although it isn't there yet. Valve is highly interested in Linux right now, and a Steam client for Linux might be available as soon as this year — you must account for Valve time though and add a few years to that. With Windows 8 coming with an inbuilt store for Metro apps, and Metro looking like the future of Windows, Valve, as a seller of Games for Windows is threatened. They are looking for more open pastures, and Linux seems to be it.

An improving platform

Say what you will, Linux as a platform is getting better, more standardized, more compatible with latest hardware and easier to use. Its rate of adoption is growing, and it already runs on most smartphones. The Linux Standard Base



Ubuntu Software Center

TORVALDS: "NVIDIA: F*** YOU"

Famous words as spoken by Linus Torvalds in a recent question answer session following a presentation. The creator of the Linux kernel made it known in no uncertain terms that NVIDIA is "the single worst company" that they have ever dealt with. Now those who use Linux and have an NVIDIA card will know that the NVIDIA-provided drivers are superb, so why the strong words?

Linux is a different beast than Windows. Linux users rarely have to worry about drivers, everything just works. This is why Live CDs of Linux work so well and are so popular. Graphics drivers however are something Linux users still have to worry about, and they are rather essential. For this kind of core support the hardware specifications need to be known by kernel developers. NVIDIA like many other companies keeps these specifications secret to "protect" their technology. This leaves Linux developers with no choice but to reverse engineer the drivers — in a project called nouveau — to create an open source version, a time-consuming and hard process. As a result, the performance of Linux on NVIDIA hardware is severely lacking. You might get your 3D desktop, but few 3D games will not work at all unless the closed source drivers are installed and those are not included with the distro by default. Also, NVIDIA Optimus, a technology for switching between a dedicated and integrated graphics cards automatically to save energy, is not supported on Linux even by NVIDIA's own drivers.

In contrast, AMD have released some of their specifications and actively develop an open source driver, as do Intel. Despite having better drivers than AMD for their hardware, NVIDIA are not good open-source citizens. This fact has recently even cost them a rather large order (millions) of graphics cards.


(LSB) project aims to develop a standard that all Linux distros follow. Few do in its entirety, but the situation is nonetheless improving.

Another important factor in this equation is Wine, a software that makes it possible to run Windows applications on Linux directly. It acts as a translator between the Windows application and the Linux system underneath. Wine is steadily improving and can now run popular games such as *World of Warcraft*, *StarCraft II*, *Team Fortress 2*, *Half-Life 2*, and even new titles such as *Mass Effect 3* and *Diablo III*.

The multi-platform revolution

Just a decade ago, you would have heard from a developer that supporting more than one platform was out of their reach, scope, budget or some other noun for an excuse. Today, nearly every popular application or service is multi-platform, and there are more primary platforms than ever. You have Windows, OS X, Linux, Android, and iOS. The lesser used, but still major platforms are Windows Phone, Blackberry and Symbian. Yet there are some applications that are available on all of these platforms. For games there are also Xbox 360, PlayStation 3 and the Wii.

Cross-platform development encourages good development practises, and ensures people avoid depending on the underlying OS too much. Once you have achieved that, reaching other platforms is much smoother. Look at how many of the recent games are available for OS X now; most Valve games, *Diablo III*, *Assassins Creed II*, *Deus Ex: Human Revolutions*, *Batman: Arkham City*, *Dragon Age* games and many more. There is also matter of DirectX and OpenGL. Being a Microsoft technology DirectX is only available on Windows and Xbox while OpenGL is an open standard and runs everywhere. A subset of OpenGL is also used in WebGL and on all mobile platforms — other than Windows Phone, of course — so it is something developers have to be familiar with, or at least target now. If a game is running on OS X, Linux is only a stone's throw away.

A number of new game engines now pride themselves on their cross-platform abilities. Recently Linux support was announced for the popular Unity game engine in the next v4; they credited this to the Humble Bundles and Ubuntu Software Centre. Moai is another example of an engine that is open source and supports running on iOS, Android, Windows, Linux, OS X, and the Chrome browser. Unigine is a high quality engine that supports Windows, Linux, OS X, Android, iOS, and PS3. There are many more that are more selective, but still multi-platform and could come to Linux as they already support OS X. Gaming on Linux might seem like a trivial thing to worry about, but it is essential to the ecosystem as a whole. The lack of games is often cited as one of the things holding Linux back. Having one of the most popular and fun uses of computers available to Linux will only serve to improve the adoption of Linux. 

Open Opportunities

Although Open Source is all about a free policy and collaboration, it doesn't mean that you can't have a lucrative career in the field

Jait Dixit
readersletters@thinkdigit.com

Corporations and companies (small and large) have welcomed the Open Source philosophy with arms wide open! We should know, as our company has successfully transitioned quite a few processes to Open Source software. We've also been pushing FOSS (Free and Open Source Software) in India for over 11 years now. Why?

Open Source Software (OSS from now on) has radically changed the way people write code, or for that matter, changed the very code they write.

A survey carried out by Sonatype found that nearly 80 per cent of companies (which participated in the survey) used OSS in some way or another. This included companies from every conceivable sector – financial services, technology companies, software vendors, consulting firms, telecommunication firms, manufacturing firms, media and entertainment conglomerates, governments and even the military. The most interesting aspect of the survey was that it found that two-thirds of respondents had contributed to the community by giving code back, and almost half of all companies had open source policies in place – setting guidelines as to how employees should work with OSS.

Now it's obvious that OSS reduces costs in the long run for bigger companies, or even for start-ups, who may be on the tightest of budgets. It's natural that such companies give back to whom

they owe their success – the community. An excellent example here is Red Hat – perhaps the world's most successful enterprise Linux distro.

Show me the money!

There are two primary ways in which you can make money from Open Source. The first is when you have an Open Source project of your own, and you try and monetise it. The second is to get a job in an organisation using your own Open Source expertise.

One of the biggest mistakes people make is to assume that since OSS is free, companies cannot possibly make any

software sales at all prefer to give their code away. Not only do they generate a lot of goodwill with the community, they also save on the costs associated with hiring people to improve security and features of their products, as the community is only too happy to do just that. It's not at all uncommon to find patches and add-on features developed by external coders in the community to be added on to commercial offerings from big companies.

The success and quality of an open source project is driven by individual project governance and best practices. Most projects that are successful were started off as hobbies or something which the author(s) finds very helpful in their own development workflow. When managing or building open source projects, it helps not having a final vision right from the outset. It helps to focus instead on the nitty-gritties and quality of the code going in. The overall quality and success of an open source project is always driven by the effectiveness of the community surrounding the project. Poorly managed projects tend to die quickly.

Career opportunities

Not all of us can envision or start up an OSS project. In fact, 99 times out of 100 (if not more), any idea you have for a software is already being developed by someone else. You usually have two choices then, either join that project and become a significant contributing member, or take up one of the more popular OSS projects out there and become



Reach for a new horizon

money from starting an OSS project. We'll list out a few business models below to help bust that myth. Large companies (Yahoo, Facebook, Google, etc.), whose income doesn't really depend on

an expert in the code. This enables you to find jobs at companies who use that software, as an in-house specialist, or as someone who maintains and modifies add-ons that the company uses. And if you thought that there was a slump in the amount of companies using OSS, think again. "There is definitely growth in demands for open source technology. Customers are looking for reliable, high-performing and agile technologies that can address their complex IT challenges, while allowing them to plan ahead for the future. This is where open source technology can help to meet these demands," said Andy Karandikar, Pre-sales & Services Head, Red Hat India, Red Hat India about the importance of open source technology in the industry today.

In order to structure our look at the industry for this article, we've broken it into various intersecting domains.

Desktop

One of the most traditional software markets, the open source connection here is GNU/Linux. In a recent discussion session following a presentation at Aalto University, Linus Torvalds, the creator of Linux, said – "I started Linux as a desktop operating system. And it's the only area where Linux hasn't completely taken over. That just annoys the hell out of me". Yes, it's true that the desktop market is ruled by Windows, but Linux is slowly and surely gaining traction with both consumers



"There is definitely growth in demands for open source technology. Customers are looking for reliable, high-performing and agile technologies that can address their complex IT challenges. This is where open source technology can help to meet these demands"

– Andy Karandikar
Pre-sales & Services Head,
Red Hat India

and enterprises alike. It certainly isn't this alien OS that it once was, thanks to Ubuntu and the likes. The career opportunity here is developing new apps and porting existing apps to Linux. Ubuntu, for example, has launched "Ubuntu App

Showdown" which asks developers over the world to develop apps for Ubuntu and has even declared prizes for the same. Most companies recruit seasoned developers as consultants on contractual basis for porting or developing new apps to Linux.

Mobile and embedded systems

Android, perhaps the most famous OSS project today, is one of the most prevalent OSes in smartphones. According to the latest figures about 900,000 Android phones are activated per day – that's about 28 million droids sold every month! 10 every second!

The primary career opportunity in this space is as an Android App Developer. Google Play, the newly-rebranded Android app store crossed 15 billion app downloads a few weeks back. According to one analyst, Google has paid out about \$320 million to developers until January 2012. What this means is that it's very lucrative for developers – most of them employed by companies to build apps, rather than individuals. Of course, there are also more places to sell the same apps, thanks to companies such as Amazon.

Another open source app development platform to look out for is HTML5. In fact it would be appropriate to call HTML 5 as "the next big thing" when it comes to development frameworks. According to a joint survey carried out by IDG and Appcelerator, 79 per cent of mobile developers report that they will integrate HTML5 in their apps this year. This figure is much higher than what many industry observers had anticipated in the fourth quarter of 2011. The biggest challenge that the developers face here is fragmentation and the fact that HTML5 is still a work in progress.

Next in line are embedded systems – the software and hardware that power our day-to-day appliances such as microwaves, refrigerators, washing machines and even toasters. Software front-runners in this space are Linux and Android. Android in particular is being used in a multitude of embedded devices right now. There are a quite a lot of job opportunities for working on the kernel and device drivers for such system, along with front-end development for touch-screen-based apps.

HERE ARE SOME OF THE MODELS FOR MAKING MONEY IN OPEN SOURCE

SUPPORT / CONSULTING SERVICES:

This is where you would give your software away for free, but charge for professional support. This is the Red Hat and Canonical (Ubuntu) model.

DUAL-LICENSING:

This is where you distribute your product as OSS, but also have special licensing for corporations. Of course, corporations could still choose to use your software in an Open Source manner, but then they would also have to agree to share any code for add-ons to your software that they develop in-house. This is why many large corporations who modify OSS products to suit themselves prefer to pay for dual-licensed products in the interest of security. Kendo UI adopts this model.

WIDGET FROSTING:

Usually employed by hardware vendors who go open source to get better drivers and cheaper interface tools designed by the community. Silicon Graphics employs this model.

ACCESSORISING:

Selling accessories – usually books and compatible hardware but you can also trivialise this to include T-shirts, coffee mugs, penguin dolls and so on. Canonical and Mustache.js work on this model.

Cloud

According to a survey carried out by RightScale on adoption of private cloud by corporations, 64 per cent of respondents plan to include a private cloud option as part of their portfolio – open source private cloud solutions are taking the lead. A lot of industry honchos are speculating that open source cloud offerings may become the de facto dominant platforms for private clouds. InfoWorld's Oliver Rist has gone ahead and said that OpenStack, one of the many open source private cloud options, has become the "new Linux".

The point here is that more or less most of the corporations around the world are moving their entire infrastructures to the cloud to save on operation costs and thus are on the lookout for engineers and cloud specialists who will help them virtualise their products and infrastructure. The cloud is also the major talking point among the CTOs and CIOs around the world. They are either already in the process of switching over or are in the planning stages for doing so. Nearly 80 per cent of the workload in the cloud are on open source technologies. This provides clear indicators for exciting career paths in this domain.

Enterprise

According to the 2012 Future of Open Source Survey which was carried out on 740 companies – OSS deployment is reaching a tipping point: 32 per cent of the survey respondents reported that OSS deployment has reached 75 per cent, and a further 30 per cent indicate that OSS will make up between 51 to 75 per cent of all software deployment.

The main poster boy of enterprise OSS is Linux. The Linux Foundation in its recent job report said that of the 2,300 survey respondents, eight in ten said that hiring Linux talent is a priority in 2012. 63 per cent of the employers seek more Linux talent relative to the other skill areas. "Linux professionals garner more full-time positions and better salaries, bonuses and perks. While the pay increase for IT professionals averaged just two per cent in 2011, Linux professionals have seen a five per cent increase in salaries every year, and a 15 per cent jump in bonus payouts. They also enjoy

flexible work schedules (37 per cent) additional training and certification programs (30 per cent) and salary increases above the company norm (28 per cent)." said Andy Karandikar of Red Hat.

Where to start?

So how do you actually start developing, contributing or working on an open source project and get noticed and hired, well the best thing to do is to dive right in. All you need is rudimentary to intermediate programming knowledge in the programming language of your

"When it comes to hiring, I'll take a Github commit log over a CV any day."

– John Resig, creator of the jQuery JavaScript library


choice. It can be anything from C, C++, Java, JavaScript, Python, Ruby, Node.js, Drupal, Linux, OpenStack, RoR, Scala or for that matter HTML5 and CSS3 – anything that you're comfortable with. Next, search for projects that you like that are built on your language of choice – often, it turns out to be something you're already using on a daily basis. Start with reporting problems and bugs, and it's even better if you can fix the said bugs. This will allow you to post the results back to the community, or send a patch to the maintainer. Next you start looking for ways to add new features,

or enhance existing ones, and discuss it with the community and the developers. If you are capable, the next step is to develop and integrate said features or enhancements into the project yourself. The community is helpful, and will give you feedback whenever required, and even act as beta testers.

"When it comes to hiring, I'll take a Github commit log over a CV any day.", says John Resig, the brains behind jQuery, a popular JavaScript framework. This goes to show the importance of being a part of the community. Since most new enterprises have a lot of OSS, they make sure that their employees are involved in the community – if you're already involved, that's one less step of training for them. In fact, very often, people from the community are the first ones contacted for job openings.

Another interesting point here that anyone can join an open source project even a developer who has only worked on closed-source projects thus far. As Andy Karandikar points out, "the beauty of the open source model is that it is open. One can switch in and out of open source software or leverage open source software at any time. One does not have to buy expensive resources to get access to the software. However, one has to adopt the collaborative model of open source, and be mentally prepared that the source will be up for review by peers."

In summation

As you can tell from this article, there's no real magic mantra to becoming a success in OSS. Like anything else, it will take hard work and passion for you to get to where you'd like to be in the IT world. The aim of this article is to give you a kick in the right direction towards finding your own way because, honestly, with the sheer amount of languages out there, the myriad of ways in which OSS is being used, there's no dearth of opportunities. There are a lot of roads for you to take. All you have to do is do what you do best, code like a madman, never be afraid to try new things, and keep your eyes peeled for a job or project that you'd like to be a part of. The world is always going to need software to improve, be searching for new software, and for new people to fill in the gaps that will be created by the adoption of new software. Best of luck! 



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Batteries of the Future: What will make your gadgets run like Duracell bunnies?

You're on a really important phone call or writing a really important email and your battery dies. Don't you feel like your world has come to a standstill and that your life is over?

Raj Saxena

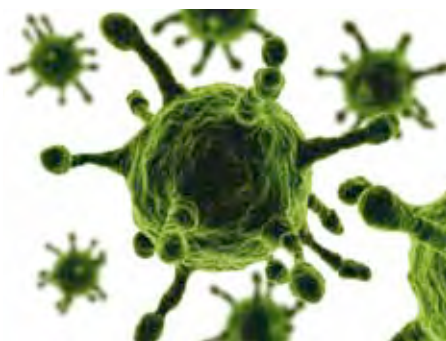
readersletters@thinkdigit.com

Batteries dictate the world of technology. All the gadgets in the world are pieces of junk without power. Hardware such as smartphones, laptops and tablets are getting faster and more capable while also shrinking in size. But the extra room gained inside devices is often used for more components and features, rather than bigger batteries which just make the devices heavier – an undesirable aspect. With our growing addiction to mobility, it's assuring to know about on-going research in battery technology. Research that will enable products to run longer.

Nature builds batteries

"My dream: to be able to drive a virus-powered car," says Angela Belcher who holds a PhD in inorganic chemistry from University of California. She looked towards nature for inspiration to solve our current energy problems. Currently the head of the Biomolecular group at MIT, her research brings together the three fields of Molecular Biology, Electrical Engineering and Material Chemistry.

Such a battery would be "alive" as viruses would be doing the heavy lifting of taking the electrons through the electrolyte. These viruses were successfully developed by the MIT team around three years ago. This is the first time that viruses have been genetically engineered to build both, the positively and negatively charged ends of a battery. The new



Research is on to use viruses as agents which transfer electrons in a battery

technology produces the same amount of power as the state-of-the-art batteries used in hybrid cars today. These batteries can be manufactured by a cheap, environmentally-safe process. The process of development takes place at room temperature and needs no environmentally unfriendly solvents – something that hasn't been achieved by the other battery-tech gurus. Experts say that the anode is simpler to develop in a virus battery as compared to the cathode, the reason being that it needs to be highly conducting to be a fast electrode. Therefore, the current research is focussed on building a highly powerful cathode to pair up with the anode.

Graphene Power

Next, we come to Graphene, a material that has been under intensive research in recent times due to its versatility. In fact, IBM's breathing batteries face stiff competition from the graphene batteries. Graphene is a material that

consists of a layer of carbon that is only one atom thick.

IBM researchers believe that graphene isn't stable enough for long-term usage but researchers led by Zihan Xu of the Department of Applied Physics and Materials Research Centre at Hong Kong Polytechnic University disagree. The team has developed graphene batteries by attaching gold and silver electrodes to a graphene sheet. This assembly was immersed in copper chloride solution and an output of 0.35V was measured. An assembly of six such cells in a series was connected to a Light Emitting Diode (LED). The device generated the same amount of power for about 25 days, but after a month it dropped to 40 mV.

In a research paper, Professor Xu mentions that the output of the battery increases when the electrolyte (copper chloride solution) is heated as well as when the assembly is exposed to ultrasound energy. This is because the kinetic energy of the molecules increases when



A graphene battery involves attaching Gold and silver electrodes to a graphene sheet

IBM battery 500

Get the in-depth dope on what makes up the Battery 500 project on this IBM site. It has videos and detailed diagrams. <http://dgit.in/O8C9bM>



Google Glass Demo

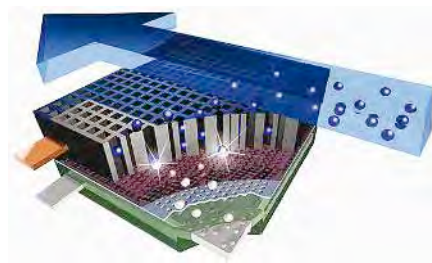
At Google I/O 2012, the Project Glass team took product demo presentation to a new level and even you can explore it. <http://dgit.in/MLYzfN>

From the Labs

heated. Though research is still under way, if Xu's "Graphene battery" is harnessing the thermal energy of the motion of ions to generate power, this may prove to be an essentially unlimited source of power – a huge breakthrough in self-powering technology.

IBM's Battery 500 – Batteries that breathe

Currently, electric vehicles can cover a maximum distance of around 100 km on one charge. Imagine an electric car that can



Battery 500: basic structure

run for around 800 km on a single charge. Well, if things move in the right direction, soon we may actually.

IBM successfully demonstrated its airbatteries, which draw oxygen from the air and recharge by expelling oxides. The concept of relying on the atmospheric air makes the batteries lighter and easier to accommodate inside cars as compared to conventional batteries which become too heavy for long journeys. If successfully implemented, we'll be able to travel from say, Mumbai to Bhopal on a single charge. Also, our dependence on fossil fuels would drastically decline. No more refueling at the petrol station! What's even

better is that once in mass production, the prices of these cars are expected to be in the price range of petrol cars.

Silicon Battery

Next in our list of promising batteries are silicon-based batteries. Silicon-based anode materials are in the process of being researched and manufactured by 3M, a leading battery material supplier in the US. The Department of Energy has given the project its nod, with a grant of \$4.6 million to build more energy-efficient vehicles. 3M invested a matching amount in resources. 3M was recently granted a U.S. patent for a Silicon-Lithium anode that promises a 20 per cent increase in energy density when used in conventional cathodes. If these anodes are paired with 3M's proprietary high-energy cathode technology, then the alloy can produce 40 per cent more electrons as compared to similar sized components. This effort has the potential to have a global impact on battery technology in terms of innovation. But don't run to the store just yet though, as this technology is expected to roll out within the next two years.

Battery, but no battery

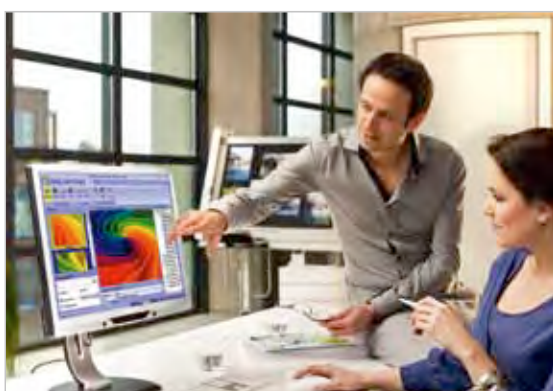
Again a work of MIT students, this device aims at providing a battery-free monitoring systems. Something that can be used in biomedical devices. The device can harness power from multiple sources such as natural light, body heat and vibrations in the environment. The latest work by a doctoral student, Saurav Bando-padhyay has resulted in a chip that can harness power from all of the three power

sources mentioned above, optimizing power delivery. The major problem in this technology is having to switch between power sources. For example, body heat can generate 0.02 to 0.15 V whereas photovoltaic cells can generate 0.2 to 0.7 V and vibrations can produce up to 5 V. Lately, the approach to generating power in this way is to switch between power sources depending on the amount of power generated by each source. Co-ordinating the power sources to get a steady output though is tricky. Another approach is to extract power from all the sources and then switch rapidly between them.

Is "New Technology" actually required?

And then there's Powermat, a product that enables you to charge your devices wirelessly. To charge your device, you just need to attach a small receiver to the back of your phone and put it on your "Powermat". There's also a portable version that has a battery and you can carry it to charge your device when there's no power source around.

For cars, Qualcomm has developed WEVC (Wireless Electric Vehicle Charging) technology that can transfer energy wirelessly to your car batteries. Wireless transfer of electricity – or WiTricity as it's known – was demonstrated in 2007. Many successful commercial applications have come up in the market since then. Looking at the current trends in technology, even today we can overcome the problem of feeding our energy guzzlers. Guess we'll have to wait and watch which technology rises and shines and which ends up in the dust.



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HUMANS: The World's Best Supercomputers?

We draw parallels between computing systems and human anatomy to put a case for us being supercomputers

Abhishek Choudhary
readersletter@thinkdigit.com

Last month, we told you how we might be living in a virtual reality system, and that what we call 'God' might really just be a programmer. If that were true, the persona that we call our existence in this (un)real world, would have to be made up of virtual machines that compute our lives, individually and as a whole. Possible? Yes. Probable? You tell us. Read on to know more.

The Initial Whistleblowers

It has often been argued that the ancients already possessed all of the knowledge that we seek today, albeit in a different form. How that came about to be is a discussion for another day, but the signs are indeed there that our forefathers knew a lot more than we've given them credit for. Multiple cultures across the world have been celebrating what they consider to be a limitlessly powerful tool, the human mind, and that we have been given immense capabilities by the Gods. But not everyone knows how to use it.

The Modern Attempts

The human body is a constant source of inspiration to scientists when it comes to developing new-age research in computer sciences. We are something that science has been trying to emulate/involve in one way or the other, to make highly capable machines.

Take, for example, the recent discovery of 'Programmable ROMs' inside the human body! What has gone down is



that researchers at Stanford University have managed to develop a method to store, erase and restore digital bits in the DNAs of living cells. Apart from the incredible applications in neurosciences, it can have amazing effects on the direction that memory research takes from here. Read more on the topic here: <http://dgit.in/NDnQJO>.

One of the more interesting fields of research has been the human brain and its working. Recently, IBM started a project named 'SyNAPSE', which is aimed at studying the cognitive properties of the human brain, and trying to emulate them digitally. They base their research on the fact that if we could scale down seemingly incoherent areas of computing, supercomputing and nanosciences, and add in the knowledge of the digitally capable parts in the human body through our knowledge-base in neuroscience, a computer could be, theoretically, made to develop a sense of

'self'. The project is still in its early stages though, and the people involved have a lot to do before they even start fulfilling the grand promises that they have made. A few preliminary papers have been published, though. (Read more on the research, and the released papers here: <http://dgit.in/NBUemk>). If they do manage to succeed (or if anybody else does for that matter) then our world would be in for a radical change in the way it looks at computers, and humans!

There have been multiple other attempts to first understand and then harness the endless capabilities of the human body. The 'direct-to-brain' interfaces, telekinetic powers, intuition and the sixth sense, telepathy and many others spring to mind. There was even a claim a few years ago that the randomness of random-number-generators is affected when the world is focussing on some popular concern such as a football World Cup or the Olympics! There is nothing ground-

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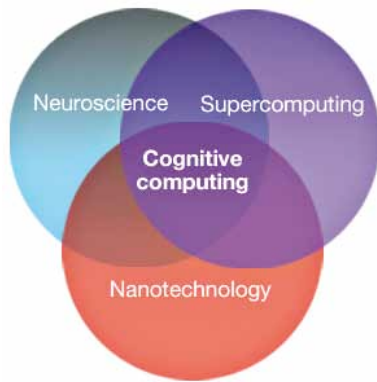
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The IBM SyNAPSE Initiative: Blurring the lines between neural and digital

breakingly new on these fronts as of now, but the mere fact that these areas of study exist, point to the fact that there's something out there. And that we will get to it sooner or later.

The Direct Comparison

Non-volatile memory (based on human memory), processors with in-built memory (the brain), then comes DNA computation, and now we know that even DNA can store massive amounts of data. Maybe nature built us that way - biological supercomputers?

The brain:

The processor (duh). And also the RAM, storage unit and any other interfacing chip that you may or may not know of. Seriously, it is an amazing organ that the world's best computers can only hope to emulate and maybe, just maybe, hope to match in the years to come (they wish!). A fully developed human brain can store 2.5 petabytes of data. That should amount to approximately a million gigabytes. You can gain some perspective from the fact that just to use up all that space, you would have to store over 300 years of conscious data (and still we carry chits to exams, tch-tch).

Now for the hard talk - computing power. By some estimates it takes only one human brain, operating at full capacity, to compete with all of the world's supercomputers combined. This does not apply to specific task-oriented machines such as, say, those designed to play chess though. So much for the quantitative analysis, it is the qualitative one that

crowns the brain as the ultimate champion of signal processing. That walnut shaped blob of neurons really is a masterpiece of biological evolution. One that might take us hundreds, if not thousands, of years to replicate.

To get some perspective here, we can see that game developers have employed a program that was designed to assist spaceships for landing on the moon, just to simulate the smooth movements of a human being. Then there's breathing, body fluid control and so much else, just in the involuntary part. This still leaves us with enough processing power for us to get through our day. Then there's also the cherry on the cake - we are capable of learning. Cognitive abilities are inherent in humans, and ancient records of the forbidden experiment, raising a child without the influence of culture, show that even a human with little to no 'herd' contact will develop some sort of a surrounding-based intelligence. Something a computer has never been able to do.

Other Storage Centres:

If we really are supercomputers, we are definitely the best, that is a given. The reason is that we have overcome the one difficulty that our digital counterparts still have to reach - we are capable of reproduction and thus ensure that our race lives on. For this purpose, we store lots of 'unchangeable' data inside our bodies - think of it as 'ROMs' in our body, as has been made popular by online memes (and indeed one of the few 'truths' that they propagate). One study claims that a regular chromosome in a human body carries about 75 MB of data, and about half of that is the capacity of a sperm cell - about 37.5 MB. So, in order to create a new life (read: computer), the entire 'initialization factor set' is compressed and passed on when a child is



Now this is really, really compact storage


conceived. It is from the decompression and breakdown of that information, and usage of complementary data in the female body (at least another 37.5MB), that a child is 'prepared'. Freakishly outrageous, but freakishly correct. True story.

Nerves:

Connecting wires to our peripherals. Nothing fancy here. In fact, the speed of transmission of the signal isn't even in comparison with the digital counterparts. 120 meters per second, there's quite a bit of lag there.

The Final Word

The popular base on which humans claim superiority over machines is their 'intelligence', or decision making ability, out of their own free will. Now as a treat to you all before we go, we present this startling fact - scientifically, there is nothing called free will. Yes, we indeed are, without a shred of doubt, computed and computing systems. The entire discussion that went down here was to draw parallels with computing as we know it, but the fact of the matter is that computing does not have to be the way that we know it. Any system that is made up of components that can hold distinct values, and can respond to 'inputs' and produce 'outputs' is theoretically a computing system.

Physics says that if we could get to know the exact state of any and all particles in a system, then the exact state of the system can be predicted, and that this statement holds at all scales of existence. Our world is made up of, at its most basic level of atoms. Stephen Hawking, in the legendary book *A Brief History of Time* claims that if we could, somehow get to know the states of all the particles in the Universe, then we could predict everything at any point of time in the future, and calculate everything at point in the past. Computers, to us, seem unintelligent because we know all of the states, and all of the inputs of a program. Well, if the programmer we talked about last time knows all the states and all the inputs, we are no better than our idiot boxes to him. There goes that human pride down the drain. Ouch! 



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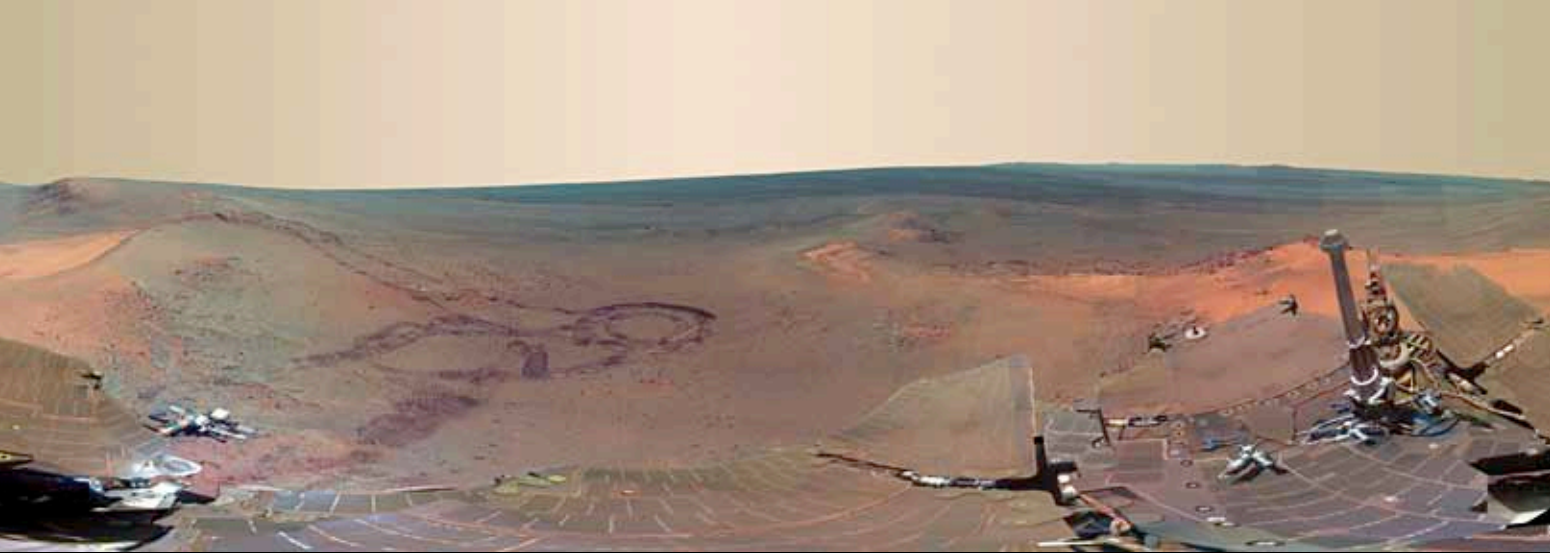
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EXPLORING MARS A HISTORY AND THE FUTURE

Mars is a planet that has long held our imaginations. We take a look at the story behind the red planet and what we've accomplished so far

Anirudh Regidi
anirudh.regidi@thinkdigit.com

Of all the planets in the solar system, for some reason it has always been Mars that we associate with life, the future hope of us humans, among many other number of things. Why is that? Why not Venus, or one of Jupiter's moons? What is so special about this red planet that has captured our imagination so?

16th-18th Century - Hope!

Mars has been under observation since the time of the Ancient Greeks and Romans. Even at that time it was called the red planet and was claimed to be a herald to War and destruction. It was only in the early 16th century, with the invention of the early telescopes, that the "astronomers" of that time started observing Mars. It was Christiaan Huygens who observed bright and dark spots on the surface of Mars, features he thought resembled caches of water. Sometime around 1672, Huygens and his nephew, Cassini, thought that they

could see clouds and surface features on the red planet. They were wrong about the clouds of course, which later turned out to be massive dust storms, but they did notice the polar ice caps. These observations seemed to indicate the presence of water and even a proper atmosphere, a clear indicator that life was possible and that it probably already existed on the surface. It was only in the early 18th century however, that William Herschel and his sister, Caroline, confirmed the presence of the polar ice caps on the Martian surface.

Venus would have been far easier to observe at the time, being the closest planet to Earth. It would in fact have been the logical place to look for life on,



Global dust-storms can obscure the Martian surface

being of a similar size to Earth. The planet however is shrouded in clouds of sulphur, impossible to penetrate using the visible spectrum of light. To the astronomers at the time, Venus was just another white disk in the sky and compared to that, Mars seemed to be full of promise.

18th-19th Century - Life!

This was the century where "conclusive" proof of life on Mars was found. This speculation started when Giovanni Schiaparelli started mapping the surface of Mars. He assumed that dark spots were the seas and oceans and he called the lines Canali ("canals" in Latin). This is where the trouble began, people misunderstood and assumed that Giovanni was talking about actual canals. It never occurred to anyone that features as small as canals were impossible to observe at the time.

This misconception is the equivalent of saying that God exists because the God particle exists. Either way, someone heard that there were canals on Mars, people started imagining that they were seeing them too and the idea was stuck. Canals = intelligent life, so Mars had intelligent life. It seemed an obvious conclusion at the time. It was even theorised at the time that the Martians built canals all the way from the ice caps so as to irrigate their dying

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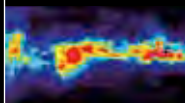


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Blackholes in the Milky Way?

A research team at Keio University has discovered intermediate-mass black hole (IMBH) at the centre of the Milky Way galaxy. <http://dgit.in/QekuTB>

Ghost galaxies discovered

Galaxies alleged to be fossils of the early universe, which haven't changed in 13 billion years have been unmasked by the Hubble Telescope

planet. Numerous books were written on the subject of extra-terrestrial life, Mars in particular. People such as Percival Lowell started publishing maps, being the owner of an observatory, he imagined he saw whole networks of canals and even went about labelling and charting them.

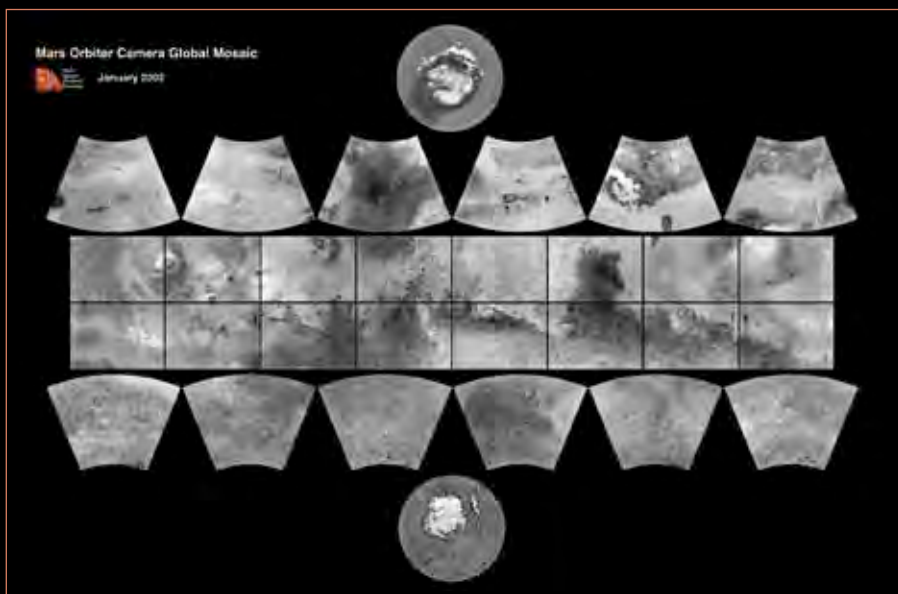
19th-20th Century - First Contact!

This 19th century saw the rise of the industrial revolution, the development of rocket engines and by the 20th century, the launch of the first satellites into space. Interestingly, it was the Russians who sent the first probes to Mars, the Mars-1, Zond 2 and Zond 3 probes, between 1962 and 1965. Only the Zond 3 managed to transmit images though. These were soon followed by probes Mars 3-7, and the Mariner series of probes from the US. It wasn't long before actual vehicles and probes landed on the Martian surface, the Viking 1 and 2 probes. These never did find any trace of life, but they did transmit the first images from the surface of the red planet.

The 20th century also saw the launch of the Hubble Space Telescope, which completely revolutionises space photography as we know it (wouldn't you love to play with a camera, which has a lens with a 7 ft aperture and a 180 ft focal length?). Many other "rovers", such as Spirit and Opportunity, have landed on Mars and have collected a lot of data with regards to the surface composition and atmosphere, and some of the most spectacular images of the red planet yet. Head over to <http://dgit.in/QcQual> for more information on these rovers.

Present day - A stark reality!

The Curiosity rover is the latest spacecraft that is scheduled to land on Mars. Its



primary goal, other than exploration, is to dig into the Martian soil and examine the samples for proteins and other compounds that can only indicate the presence of life. The red planet is a barren and desolate place, just the dust alone is enough to kill a normal human and completely clog machinery, unless adequately protected. It's possible that Mars did host the building blocks of life, but many scientists have concluded that it would not have been possible for Mars to host it for any definitive period of time. It is very likely that Mars had a lot of water earlier, but the fact is that Mars is so tiny and has been bombarded with so many meteors that it just couldn't hold on to its resources. The low mass of the planet means that every time there a reasonably large meteorite (about the size of a large house) smashes into the surface, Mars just loses another large chunk of its atmosphere and even mass to the black

depths of space. The lack of an active magnetic field also means that whatever remaining atmosphere is there, is regularly washed off by the solar winds. Our magnetic field actually protects us from the harsher reality of space, radiation from solar storms, gamma ray bursts, etc. Mars is just not up to the task, there is no way, with the currently available technology, that Mars can ever be a viable home to humans.

The future?

After all this, we really need to know whether we actually want to go to Mars. Yes, it is one of the closest planets to us and not as hostile as some other planets, but what purpose can it serve?

The planet cannot support life, the surface is subject to debilitating dust storms and the radiation alone would kill almost all organic life. The only reason NASA and other space agencies are looking at Mars now, is to find out if the building blocks of life originated on Mars and somehow made their way to Earth, and also, in effect, as a research project for future space missions. The future of Mars, as a habitable alternative to our own is suspect. The future of space travel? Not by a long shot. We've really come a long way, from the first ape that threw a stone at the moon a million years ago, to actually landing a rocket on it 50 years ago. We are capable of anything and we will find a way to conquer space itself. Just probably not in this lifetime! **d**

Phobos probes

Russian Phobos 1 probe was probably among the unluckiest probes to visit the red planet. It was lost when the termination signal for an altitude correction program was activated by an incorrectly coded program. The program shouldn't have been there in the first place, but a rushed schedule meant that it got neglected.

The Phobos 2 probe was the source of a great controversy. The probe functioned perfectly for a long time, but when it came to within 50 feet of the Martian surface, to dispatch two landers, all communication was lost. What started the controversy was the presence of shadow in the shape of an ellipse, on the Martian surface, on the last image transmitted by Phobos 2 just before its destruction! The Soviets claim that it was just the shadow of the probe itself, but conspiracy theorists beg to differ.

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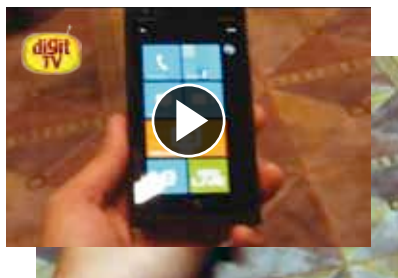
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SLICK USER INTERFACE

The new site sports an intuitive user interface by incorporating multi-level navigation panes, search filters and tools like product finders to ensure a smooth user experience.



FRESH DESIGN

Sony Cyber-shot DSC-HX100V



Price: ₹23000

Digit Rating: Good

★★★★ 3.5/5

Features: ★★★★★

Performance: ★★★★★

Value: ★★★★★

Design: ★★★★★

PROS

- Video performance
- Performance in low-light
- Great in macro mode
- Optics are excellent

CONS

- Lack of hot shoe
- Noise reduction algorithms too aggressive

SOCIAL CONNECT





Remote printing, laptop battery issues, unresponsive monitor

We troubleshoot all these issues and many more...

Bunch of queries

I've been a regular reader of your magazine for over six years now. I have a Lenovo X61S, which had white smoke coming out of the exhaust, and when I got it diagnosed from the laptop repair guy, he said that the motherboard's burnt.

Now, I have 3 options with me.

- Get the motherboard replaced for 10k+.
- Get a new laptop.
- Get a second hand/used laptop for the time being

I think ₹10,000 is pretty steep. And spending that on a motherboard that doesn't have a warranty, and is a used one, is surely not what I prefer.

My X61S has served me a good 5+ years, and I wouldn't think twice before getting a new one now. But, here's the thing. Windows 8 is coming later this year and most predictions foresee a new line of laptops, some with touchscreens. They are all expected to release within a year, making my new laptop buy obsolete. I don't want that, surely. Also, with Ivy Bridge based laptops releasing in the US for the same price that i5, i7 laptops are sold in India, discourages me even further to buy a new i5 or i7 laptop.

That brings me to the third option.

My hard disk, my customizations for the OS and settings throughout in every software I've installed, and my recent upgrade to a 4GB RAM, makes me want to get a 2nd hand laptop, with Core 2 Duo or later (so that it runs Win 7), and then replace the hard disk and RAM with mine, and use it for atleast the next 12 months, until Windows 8 settles in. So, where can I buy such a laptop? In my search, I've found that the Dell Latitude D630 is a good option.

Let me know what you think about each of the options.

Thanks!

Sanjay Shah

Let us go by individual options:

1. Replacing a motherboard of your laptop, which is quite old and that too at 10K+ does not make sense.
2. Regarding a new laptop, there will always be new technologies on the horizon and you will always think that waiting is good. But you need to finalise on your basic needs. Will you be really using the touchscreen on your laptop? And considering it is a new design, new OS, new processor, are you willing to spend that much? If the answers to the questions are yes, then it will make sense to wait.
3. For the second hand laptop, if you are getting one under ₹20,000, and you want to wait for the Ivy bridge laptops, then go for it. No point spending more than ₹20,000 for a second hand laptop, if it is just going to be a stop-gap arrangement.

Free remote printing

I request you to suggest the best free software for remote printing. My office computer is connected to a local printer and the same is on broadband. I want to be able to send print jobs to this computer from anywhere as long as I am on the internet. I found PrintShare service, which fits my requirement best, but is a paid service after 20 pages. The difficult part was to find something free. Well I leave the difficult part on you. Both my systems are on Win XP SP2. Thanks in advance.

Vikash Singh



Google Cloud printing offers you remote printing facility

Looks like Google Cloud Print is the right tool for you. All you need is a Google account and you can set cloud printing from your Chrome browser. Go to Settings>Under The Hood>Google Cloud Print and enable the printer. This works with mobile devices such as smartphones and tablets as well. So long as the printer in your office is on, you can send a print job from anywhere on the planet provided you're logged into your Google account.

Can't find PCIe slot

My configuration is Intel Core 2 Duo E7500 @ 2.9 GHz, 3 GB DDR 2 RAM, Samsung HA250JC hard drive, Motherboard P5KPL-AM IN. I want to install a graphics card on it but i don't know that if my motherboard has PCIe x16 slot on it.

Please suggest a good graphics card to improve the graphics-related performance of my system. My friend suggested me to upgrade motherboard having any of the following chipsets: G35; G43; G45; Q45 and B43 to improve graphics.

Is it better to upgrade motherboard or buy a graphics card?

Please help.

My PC graphics status at present is :

- Display adapter type Intel(R) G33/G31 Express Chipset Family
- Total available graphics memory 256 MB
- Primary monitor resolution 1920x1080
- DirectX version DirectX 9.0

Akshay Chaudhary

All the ASUS P5KPL-AM motherboards have a PCIe x16 slot. It will be coloured in blue. If you are not facing any issues with your system and just want better graphics, then there is no need to upgrade the motherboard.



No Flash player on Android 4.1?

If you were hoping to run an updated flash version on your Jelly Bean device, Adobe has officially confirmed that "it's not possible". <http://dgit.in/LtoidU>

Pinterest Vs Tumblr

Pinterest and Tumblr both are essentially media blogging platforms, but actually they are very different. What differentiates them? <http://dgit.in/MFnXH1>

Q&A

Just invest in a new graphics card. There are many graphics cards in the market. So based on your budget, you should opt for the right card. Since you have not provided the budget, we would like to give you choices. At the low-end budget cards, which are not meant for hardcore gaming but to improve your video playback, you have the AMD HD 6450 and NVIDIA GT 640. For slightly mid-range cards which allows decent gaming you can go for: AMD HD 7750 (₹12,000) or NVIDIA GTX 550Ti (₹8,000).

Plugged-in, Not Charging

My laptop's battery status is showing "plugged-in, not charging". It's Dell Inspiron 15R. There are 3-LED indicators on the front of my laptop, out of which the 3rd one is to show the battery status. Even with the charger connected to it, it's showing a red color blinking. The battery is not reaching the 100 per cent charged level. It's stuck at 99 per cent showing "plugged-in, not charging". I've attached a snapshot of the same too. I watched a movie for around 2 hours on the battery power without using the charger. It completely drained-out to around 2-3 per cent. After that only this thing is happening.

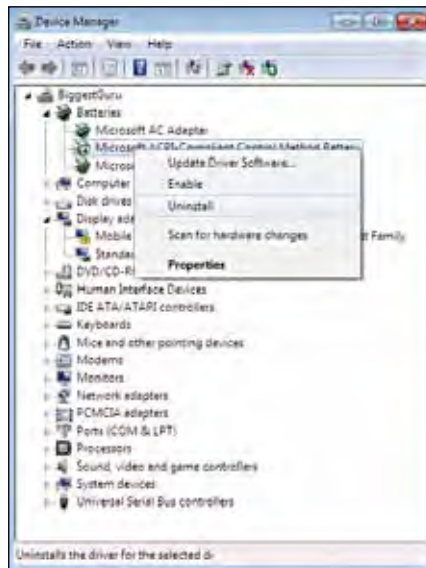
The LED is blinking 5 times, out of which the first 4 blinks display red color, while the 5th blink immediately after it is displaying a white color.

Please let me know why is this happening.

My laptop specs are:

- Dell Inspiron 15R N5010
- Intel Core-i5 M460 @ 2.53GHz
- 4GB RAM
- 500GB HDD
- 1GB ATI Mobility Radeon HD 550v
- Windows 7 Home Premium 64-bit.

Sagar Bakre



Control Panel > Device Manager > Battery

nected. Uninstalling the battery and then removing it from the charging point will not harm your system. Keep the battery detached for a couple of minutes and then reconnect the battery to the laptop. Go to Control Panel > Device Manager > Actions > Scan for hardware changes.

Check the battery status now. It should ideally show "Plugged-in, Charging". If in case it is still showing the old message, then maybe there is some issue with the power adapter, and you need to replace it.

Help with audio utilities

Please help me and my friends in finding software for the following things:

- 1) We runs a band called NumbeR-13. We want to be able to attach album art with the songs we make. Could you tell us a good free utility for the same?
- 2) I am currently using Audacity for audio-editing. Could you tell me of anything better than it or some alternatives?

- 3) Which is the best software to mix two songs as well as add background music.

Sushant Kumar

- 1) You can use this software called Album Art Downloader, which searches for album art from various websites and allows you to choose the picture that you want. You can then attach this cover with your song or album using a software called MP3tag.
- 2) Audacity is a good free sound editing tool, but you can also try out Power Sound Editor (<http://goo.gl/HrZmW>) or Wavosaur (<http://goo.gl/vmaf>) or Ardour (<http://goo.gl/gQnw>)
- 3) The softwares mentioned above will help you in mixing tracks as well.

Display issues

Since a few months my PC has a problem. Whenever I turn it on, the monitor reacts as if my CPU is turned off. It shows "DSUB Power Saving Mode," but automatically starts up after 5-6 mins. Sometimes I have to remove the VGA cable and reconnect it again to resolve this. I called up the technician and he changed the PSU, RAM



Bloated Capacitors - A common problem

& also connected the cable to my onboard graphics card, but that did not resolve the issue. He said the problem could be with my motherboard but wasn't sure as he never came across such a problem. Is it motherboard or a software problem? Please help me.

My system specs:

- Processor - Intel Core i3 2100 CPU @ 3.10GHz
- Motherboard - Intel DH61WW
- RAM - Kingston 2Gb DDR3
- Graphics Card - NVIDIA GeForce 210 @ 1Gb
- Monitor - LG FLATRON E2041

Raghav Marwah

Go to Control Panel > Device Manager > Battery. Right click on it and then Uninstall. The remove the battery from your laptop, making sure that the power cord is still con-

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Indoor Google Maps

Google recently unveils Indoor Google Maps, that will help you to make your way through museums. You can access it on your Android smartphone or tablet. <http://dgit.in/Mz4ZnQ>

TV for Google Chrome

Now you can watch any of your favorite TV channel across the world without using any TV tuner card. <http://dgit.in/MQSbTJ>



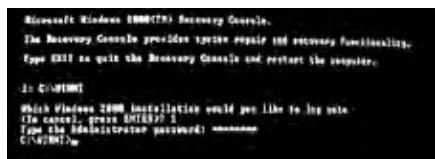
Album Art downloader searches for album-art from a variety of websites

It seems that your LCD lamp may be taking time to warm up properly. This is usually due to bloated capacitors on your monitor's power PCB. You might want to get the capacitors replaced which will cost somewhere between Rs.6-35/each.

Drive not detected

About a week ago, when I tried to turn on my laptop, it showed the usual Toshiba logo and then showed "Intel pxe rom check cable! bootable device not found. enter bootable device and press any key"

Now I am in a big mess - Windows is loaded in the c drive (the only harddrive)



Windows XP Recovery Console

and it cannot load windows - that means it cannot detect the hard drive?

Even in the bios, it doesn't display the name of the hard drive. Please help me resolve this issue.

Tushar Pandey

out the following 2 commands – FIX-BOOT and FIXMBR This should fix the problem. Before performing this you might want to insert a Linux live disc and take a backup of the partition having the windows installation.

FROM THE FORUM

Recovering data

I booted up my PC running Windows 7 Ultimate this morning, and found that out of the four partitions there, the last partition- (F drive) turned up completely blank – 117 GB free of 117 GB! It was strange as last night there was 30 GB left. Only I know the password, so no one else could have turned on the PC. I've lost ALL my data on that partition. What do I do? Real tough situation building up here. Please help! I need all my files back!

I tried Restoration. It simply said, "No files were found". My specs are as follows:

- Processor: Pentium Dual Core e5400
- HDD: Seagate 500 GB
- RAM: 2 GB DDR2

abhishek00990

Bad case. Someone may have formatted it or a virus affected it.

Try this Recuva – Undelete, Unerase, File and Disk Recovery – Free Download. In case Recuva does not work, then try out Easeus Data Recovery. It is not free, but if you didn't format the drive, it is the best.

thetechfreak and Vyom

Audio issues

I just bought this product: Onkyo HT-S3400 and am having some issues while playing games and watching movies, hearing songs. There is a glitch in the sound. It keeps halting every other second and then resuming. Can you please suggest what I should do?

I have the ASUS Crosshair V Formula motherboard that has a 7.1 channel audio and 1 optical out .

I have tried to connect HDMI cable with my graphics card to get the sound output but its not working.

Arnab

This must be some sort of electrical / signal interference issue between LAN chip and audio chip – that's why you are facing it while the net is on. Only way to eliminate this is to either use a separate sound card, or shield the audio chip on motherboard – stick an electrical tape on top of it though you need to do it at your own risk.

To use the graphics card's HDMI audio just set AMD Audio driver as your primary audio source.

Topgear

Optical or Coaxial S/PDIF

I have Z5500 speakers. It provides two options for connectivity. S/PDIF and Coaxial connection. I couldn't find S/PDIF cables.

And I am not sure, whether my motherboard supports coaxial. Can any one confirm this for me please. If yes, I'll use coaxial.

Motherboard: GA-P67A-UD3R

Varunnagwekar

You haven't mentioned which Windows you have installed, so what we can tell you is to stick in your Windows Installation disk and run Startup Repair. If it succeeds, well and fine otherwise go into the recovery console within the installation disk and type

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S/PDIF is digital audio output which is of 2 types: coaxial and optical. One of the plus point of Logitech z5500 is that it has both types of S/PDIF. Your motherboard too has both coaxial S/PDIF and optical S/PDIF output so no worries.

whitestar_999

WINAMP

Winamp is one of the leading media players out there, and perhaps the best there is for playing music. Here are some tips that could make your music experience even better.

Shortcut keys

One of the best parts of Winamp is the ease of access that it offers with the help of Shortcut keys, with such simple playback controls such as V for stop, X for play, C for pause and the likes. Go to help->About Winamp->Keyboard Shortcuts for more.

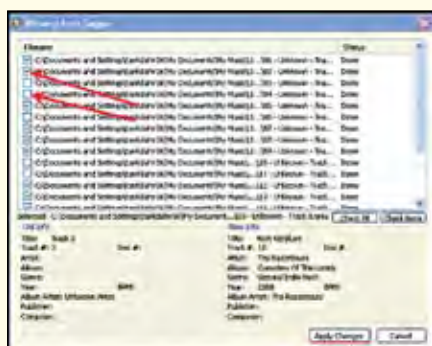
Playing order for your songs

We often change our mind after we create a playlist. Dragging the files in the playlist up and down every



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{ Tips & Tricks has its own page numbers, and does not follow the rest of the magazine's page numbers. This is done to ensure that you can cut out and save T&T in a separate folder for later reference. }



Winamp auto tagger dialog box

single time to change the listening order can be a royal pain. An easy way out, is just pressing Alt and then clicking in the order of the songs you want to be played. For example, in your current playlist press Alt and click songs 3, 7, 14 and 4 in that order. Voila! And once the 4th song is over, it'll get back to playing as it was supposed to with the 5th one (that if shuffle isn't switched on).

Moodagent

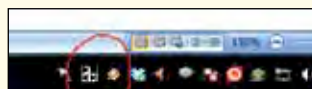
The plugin version of this app for winamp is every music lover's dream come true. It's a rainy day, you want to listen to

something calm and mellow, but you're bored of listening to all the same songs over and over again? Moodagent plays messiah, you just have to 'go discover' and a panel of 9 songs that are similar to the one you've just played/requested are suggested. If the sug-

gestions do not show up immediately, refresh it twice/thrice and it should work. Bonus: If you're a musician yourself and you want to see how these songs compare to the ones on your collection, get your tracks into moodagent and it will find similar music that sound and feel alike. You just need to download the Moodagent Profiler software, install it and run it on the library that also contains your tracks.

Tagging (Autotag)

It can be very confusing if you have a lot of "unknown" titled files doing the rounds in your playlist. Tagging each music file



Minimize with controls

personally on your media player can be very annoying, but tagging is a necessity for organizing your music library. Winamp simplifies the whole process with its incredible autotag feature. Just select the files that you want to autotag in your playlist, and then right click and send to->Auto-tag. The dialog box will

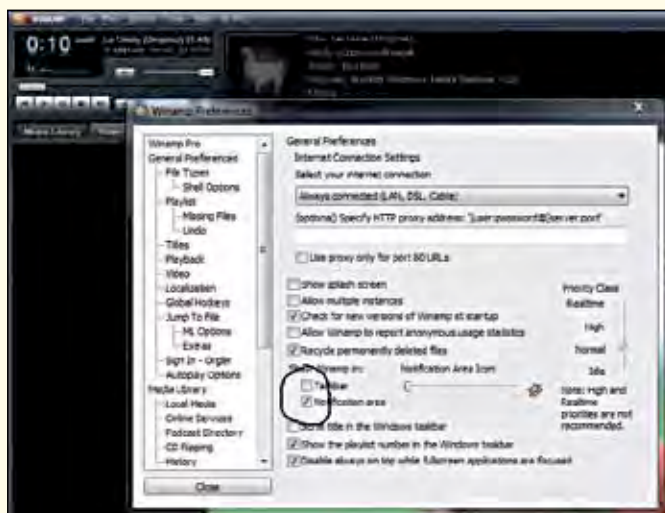
open up and start auto-tagging the selected files, letting you verify the data of each individual track before checking the boxes and applying the changes to the selected items. Deselect the media library and select it again to refresh it and you'll see that the data would have updated.

Minimize tray

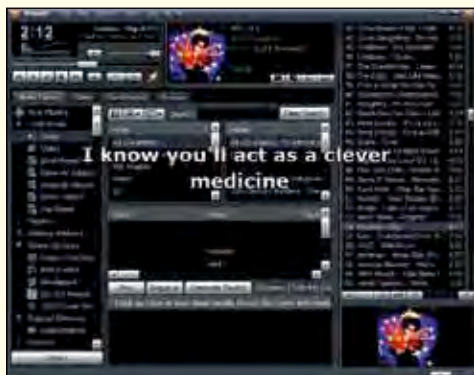
When you're listening to music and multitasking on the computer, the last thing you want is another media player window taking up space in the taskbar. Winamp lets you minimize it to tray. To do that go to options->preferences->general preferences and then uncheck taskbar and check system tray. Now your media player will not bother you while working with the computer.

Nullsoft Tray Control

Winamp lets you go one up on this. You can have complete control over the player with this plugin – it lets you place icons in your windows taskbar to play, pause, stop, skip or open a file. You just have to go options->preferences->plugins->general purpose and click "Nullsoft Tray Control" or a similar item in the right pane. The dialog box should appear and you should be able to configure as per your wish. Use it



Winamp can be minimized to tray



Minilyrics at work

as a stand-alone, or double it up with the 'minimize tray' – this is one way you can control your music no matter where you are in windows.

Lyrics

You're never in it till you sing it. Instant lyrics make the music experience so much better. There are a lot of lyrics plugins available for Winamp, but perhaps the best one available would be Minilyrics. Just download the plugin from the website, restart Winamp – and you're singing along to your favorite tune. It also has the option for floating lyrics on the minilyrics window.

Converting audio files using winamp

One nice feature in Winamp lets you convert your audio file formats. Just right click the file in the playlist and then send to->format convertor. Click on format convertor and then change settings as per your will. The only drawback is that converting to MP3 and video conversion requires Winamp PRO.

Host your own Radio

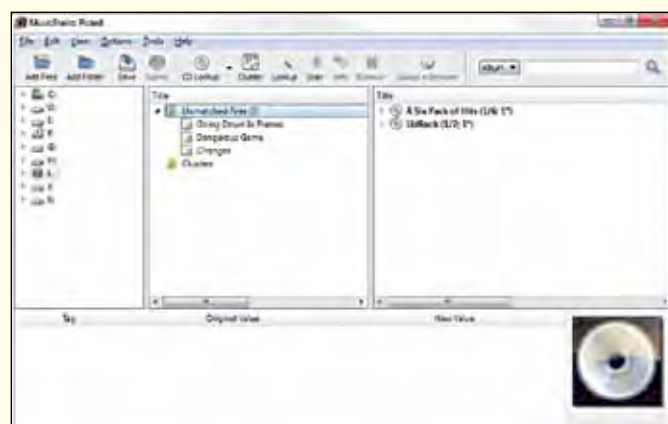
Wouldn't it be awesome if you could play DJ to a bunch of friends worldwide. Shoutcast DSP is a plugin for Winamp that allows you to host your own radio channel through the player. Download the plugin from the site and then go to options->preferences->plugins-

>dsp and click 'Nullsoft Shoutcast DSP source ...' a popup box will appear. Go to the output tab and then select output 1 and under connection enter your address, port, user id and password. Go to the encoder tab

then and select "mp3 encoder" as "encoder type". Go to the input tab on top and keep input device as Winamp and you can play music on the air to your friends anywhere in the world.

MUSICBRAINZ PICARD

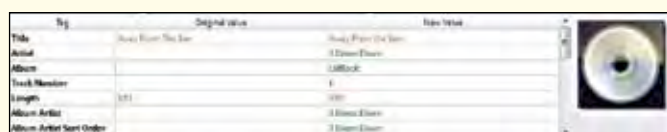
So you like keeping your music organized and well tagged, but you haven't been doing a good job



Musicbrainz picard tagging

so far; how can you whiz through your music collection with hundreds of untagged songs?

You obviously need some kind of bulk tagging software, and that is where MusicBrainz Picard comes in. Often bulk tagging software will tag based on the directory structure (Artist / Album) or based on the name of the file. Such software are essentially useless if you have a directory filled with songs like "Track 07.mp3" that you ripped long ago.



Musicbrainz picard-incomplete tag fill

Fill in incomplete tag data

If your music files have some metadata but not others, MusicBrainz Picard can look the rest of it up for you. For example, if your song is named "Drown with me.mp3" it will correctly identify it as the song "Drown with me" by "Porcupine Tree" based on the file name, and the length of the song. It will let then you add all the tags for that song, such as the title, artist, album, track number, date of release, and any other information they have.

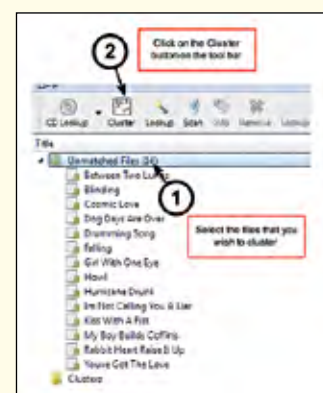
- Just launch MusicBrainz Picard.
- Drag and drop the file(s) you wish to tag onto the inter-

You can do this in bulk with dozens or even hundreds of files, just ensure that the tag is indeed correct.

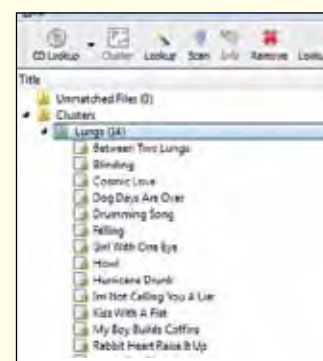
Use clusters to improve accuracy

Often there are multiple albums with the same song, perhaps as part of a "Best hits" collection or a movie soundtrack. In these cases you could get the wrong tag information.

In such cases you can provide MusicBrainz Picard with another piece of data, the other songs in the same album. If you drag multiple files from the same album and "Cluster" them, the software will automatically detect files from the same



Musicbrainz picard cluster 1



Musicbrainz picard cluster 2

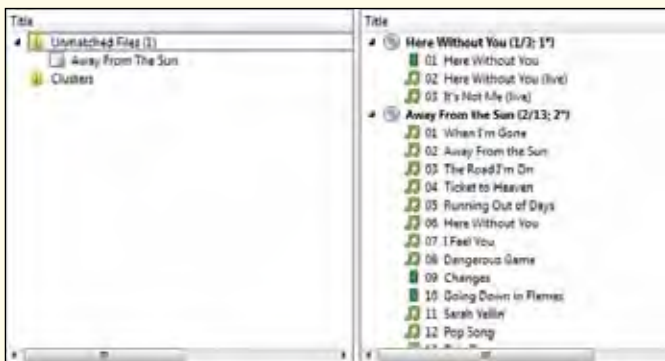
album and put them in a cluster. It will then search the tags for that cluster in its entirety.

- Drag drop the album onto the software
- Select the files and click on the cluster button on the tool bar
- Click the Lookup button, and continue the rest of the process as before.

Use fingerprinting to get tags for completely unknown files

MusicBrainz Picard can work wonders even with entirely untagged files. If a file has no information about the name of the song, artist or any other data, MusicBrainz Picard still has one ace up its sleeve.

MusicBrainz Picard can create what is essentially a “fingerprint” of your audio file. It can then compare this fingerprint with the songs in its database to get the “suspect”.

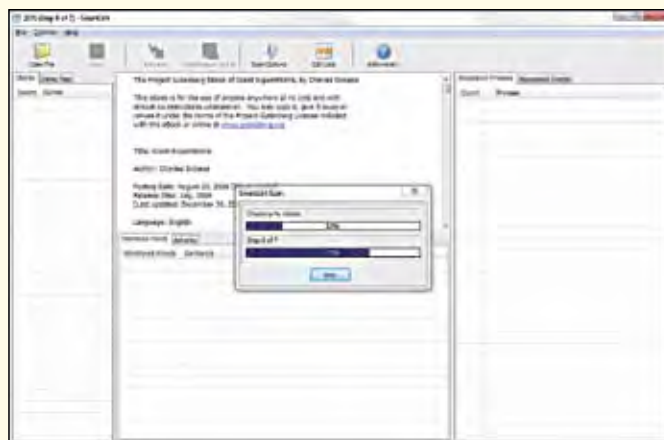


Musicbrainz picard better results with scanning

- Drag drop files as before
- Instead of lookup, click on scan; this process can take a while as fingerprints are calculated, and uploaded
- The rest proceeds as before, you can save the tag information in bulk if you think it looks correct

SMARTEDIT

Being a good writer isn't about not making mistakes at all, rather it is more about being able to recognize them and correct them. Word may have a powerful grammar and spelling checker, but that can



Smartedit scanning

often be more of a hindrance than help.

SmartEdit is a software of pure utility with few distractions. It expects that you know your own flaws, and helps you detect and correct them yourself. It presents you with areas where you are likely to make mistakes so you can go and correct them.

occurrence will be highlighted in the document.

- To find the other repetitions, press [F3]

Rid your work of clichés

Clichés do tend to creep in to any work from time to time. That is the reason they are clichés after all! However you probably want to avoid too many clichés, and thankfully SmartEdit comes with a huge list of them.

SmartEdit will list any clichés, and how many times they are used. You can go through each occurrence the same way you would with repeated phrases / words.

Avoid common typos and pitfalls

Some common mistakes such as accidentally typing “from” when you mean “form” aren't detected by a spelling checker and need manual inspection. SmartEdit can help here as well. If you know words that you usually confuse between, you can add both of them to the list of monitored words.

A common mistake people make is between “its” and “it's”. SmartEdit will let you browse through every sentence where either of those is used, and so you can quickly check the context and see if it is used correctly. Of course if you don't know the proper usage of

either, the software won't be of much help.

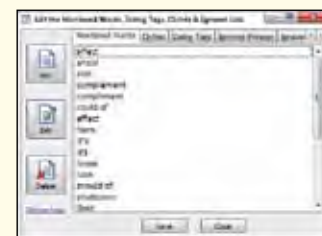
SmartEdit comes with a list of commonly confused words such as affect and effect, loose and lose etc.

Make SmartEdit more relevant to you

While SmartEdit contains the set of default lists of ‘clichés’, ‘words to monitor’, ‘adverbs’ and ‘words to ignore’, there are still a few things you can teach it to look out for.

This is the best feature of the software since it allows you to customize the software based on the kind of errors you know you make. If you know you use a couple of phrases a lot, or tend to confuse between two words, you can add them to the relevant list.

If you know you often misspell a particular word, you can ask SmartEdit to add it to the list of monitored words.

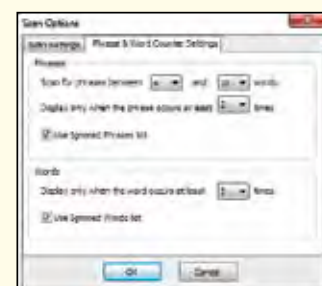


Smartedit word list edit

It is quite a simple matter to add words to these lists:

- Click on the Options> Monitored Word List... menu
- Click on the New button and enter a word or phrase
- Click on OK to add it to the list

The next time you scan a document, SmartEdit will look



Smartedit settings



out for it and show it in the correct category.

Change repetition detector settings

SmartEdit allows you to set the thresholds for what should be considered a repeated phrase or word.

A phrase repeated 3 or 4 times in a 5000-word document might not be that big a deal, but the same level of repetition in a 500-word document might be more troublesome.

SmartEdit makes it easy to set these thresholds:

- Click on Options>Scan Options
- Open the “Phrase & Word Counter Settings” tab

Here you can define how many times a word needs to be repeated for it to show up in the list of repeated words. For phrases you can also set the minimum and maximum length of the phrases it searches for.

LINUXLIVE USB CREATOR

If you like playing around with different operating systems, it is probably a good idea for you to use a virtual machine, but often that doesn't give a good idea of how well the distro works with your hardware and how well it performs.



Lili ui

Rather than installing it on your hard drive, you can create a Live CD or DVD of it. But wait, who uses those shiny disks any more? The LinuxLive USB Creator (LiLi) can take images intended to be burnt to a disk and put them on a USB drive such that you can boot from it directly.

“Burn” a LiveCD image to USB

The LiLi USB Creator UI is rather unconventional and divided into 5 “steps”. The first is to select a USB drive to write to. Plug in your pendrive, refresh the UI and select the correct drive.

When dealing with software that can overwrite your drives at a very low level, it is best to be double check that you have the correct drive selected. Make sure you have the right one.

LiLi USB Creator supports three modes for obtaining the LiveCD image. The first way is to simply use an iso or img file you already have (it can also use such files if they are zipped up). The second alternative is to use an existing bootable CD of the distro. This might seem useless, since you already have a bootable copy, however USB drives have much faster read-write speeds.

Finally, there is an option to download the disk image directly. If you don't already have an image and don't know what the different types of images are, this is the best option. It will let you select a distro and then either directly download the image, or point you to the download link.

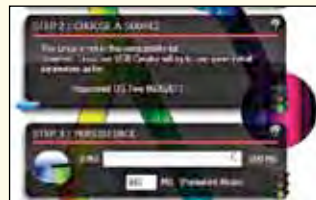
After this you can go straight to the final step at the bottom and click on the lightning icon to begin the process.

Add some persistence to your Live USB

The third block / step in the LiLi USB Creator UI allows you to allocate some space for a persistent file system. Normally a

LiveCD has no reason to expect that it can write to the disk, however USB drives are read-write media so it should be possible to allow for a proper install.

What the persistence options does is that it marks some space on the USB drive that the Live distro can write to. This way you



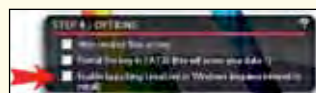
Lili persist

can install apps, save documents and use the Live Linux install as a normal OS.

This will not work for all distros, however if after providing a distro image it shows a slider in the third step, you can use that slider to make reserve space on your pendrive for writing files. How much space is reserved is up to you and also defends the space on the pendrive's capacity.

Use you Linux pendrive in Windows

This remarkable feature of LiLi USB Creator actually allows you to use your pendrive in Windows without needing to reboot! In the fourth step, simply select the “Enable launching Linux-



Lili virtual

Live in Windows...” option, and LiLi USB Creator will download VirtualBox, a virtual machine emulator and install it on your pendrive. It will then set up everything such that it is possible to boot into your pendrive in a virtual machine if you don't want to reboot.

GOOGLE PLUS

Google Plus has gone through quite a few changes since this

past April. Many of those changes have simplified the interface, giving it a more Facebook-like appearance. When it comes to the basic user interface though, Google Plus streamlines quite a lot. And honestly, who wouldn't want to be able to access everything quicker?

Access everything quicker

A new Ribbon system has been introduced. Look to the left of the page and you'll find shortcuts to your profile, photos, circles, events and more. If you dislike the clutter, left click and drag the ribbon into the More folder.

While updating, you can tinker with the various tabs above your status bar to filter notifications. This not only allows you to view and switch between groups of circles, but you can now create posts for circles that are automatically selected.

Select a tab, and then look to the far right, next to the Settings icon. You'll see a slider bar, this lets you customize just how much of a particular group you want to see in your stream. Pull it left to minimize the number of posts from said group or right to maximize the same.

Hangouts have been given far more prominence than before. It now has it's own section, with a list of on-going hang-outs, and can be accessed from the Ribbon bar. On-air hangouts, and those open to the public can be viewed here. The list is constantly updated, so you never have to search too deep for strangers to stalk.

Find hidden options

Google+'s new interface emphasizes a cleaner look and hotter visual impact. “So that's why pictures are so much prettier now!” you must be thinking. And you're not very far off. Icons and options are now



The new Google+ Events allow you to host your own offline and online events

visible by, say, hovering your mouse over a picture.

The new “activity drawer” located below a post helps mask numbers as well. Click on the drawer, and you’ll see a list of people who’ve +1ed and reshared the post in question.

Go to a person’s profile, and you’ll see a small circular icon next to their name. Hover the mouse over it, and you’ll be able to view the Circle status between you two. A single left arrow indicates you’re being followed. Two arrows, left and right, indicate you’re both following each other. If email is enabled, you can click an email icon to directly mail them.

A small gray overlay has been introduced for viewing photos. When viewing an image, the overlay will display other photos from the same user. Hover the mouse over a video, and the overlay displays the title, which you can click on to view the video link.

Change cover photo

You can now do away with the scrapbook photos of before, and have a large banner on your profile, a la Facebook. For this go to your profile ribbon. Once on your profile, hover the mouse over the banner. Click “Change cover photo”. You now

have options for uploading your own photo or choosing from the ones available. Hit save and you’ll be able to resize the photo as you like.

Set up events

“Events” is a brand-new feature, which encompasses your invitations to Hangouts, real world events and online events.

To create your own event, just navigate to the events ribbon. On the upper right corner, click on “Create Event”. This will bring up a menu, with which you can choose the theme. It seems minor, but a lot of them are animated, which looks great. You can of course add your own images as well.

Set a title for the event and date/time (synced to your Google Calendar to avoid any conflicting dates), details of the event, etc in the blank fields. You can invite people through circles or email IDs - even if they’re not on Google+.



You can upload your own images for the new Cover Photo

Click on “Event Options” to bring up the more advanced features, which include Google+ Hangout (that makes it online only), “On-Air” (so it’ll be broadcast on Google+ and Youtube) and adding additional fields. This includes fields for a website URL, YouTube links, details for reaching a place and more. Once done, just hit “Invite” and you’re set.

Explore party mode

One of the upcoming JellyBean’s features is “Party Mode” which allows pictures and media taken by members attending the event to be automatically associated

when you’ve arrived. From here, any photos and videos you take will be automatically uploaded to the event page. Party Mode automatically shuts off when the event ends, but you can also choose to disable it any time via the pull down menu in Android.

Keep an eye on trending topics

Trending topics has also been added, for all the Tweepie out there. To the left of your stream, you’ll see a small bar indicating the top trending topics on Google+.

Click on any topic, and you’ll be able to view related posts, as well as create a new post on the same for other viewers. An interesting options is being able to save your search for a topic. Look next to the Settings icon when you’re on a topic’s page and hit “Save this Search”. You can now navigate directly to that



Uncircle Inactives helps you remove inactive circles easily

with said event and appear on that page. Live Slideshow does something similar: hit “Play live slideshow, located above the title of the hangout/event, and you’ll be able to view photos of the event, as they’re being uploaded, in an automated slideshow.

To enable Party Mode, simply accept an event invite from your mobile. You’ll receive the option to enable it, and it will also notify people in real time

page from the notifications filter above your status bar.

You can also head to the explore ribbon for a few suggestions for Circles along with an expanded list of trending topics.

Extensions and Plug-Ins

Uncircle Inactives+ is a Chrome app that allows you to remove inactive users from your Google+ network. Install the application and specify a “No posts since” date, and this will show who hasn’t posted since then, thus allowing you to clean them out faster.

The new YouTube app adds playlists to hang-outs. Search for the videos within the hangout using the Youtube application, and click “Add videos to playlist” for the entire group to view. You can also save the



playlist for later viewing. Each person can add to the playlist, and moderating options allow for removing unwanted videos.

Google has also announced Takeout support, which transfers circles and connections between separate accounts. Simply head over to Google Takout and click “Google+ circles transfer tool”. It requires a 7 day waiting period, and you won’t be able to add, remove, block or ignore people or share content during that time. You can also simply download all of your Google+ data, if there’s anything you want to back up during the process like comments and posts.

AWESOME WINDOW MANAGER

Awesome is a dynamic tiling window manager. Forked from

is as easy as typing `sudo apt-get install awesome` in your terminal.

Another thing to note is that an awesome package is not shipped by Fedora officially. The problem is not from awesome’s end, the problem is its dependency on cairo. Since version 3, awesome needs the XCB backend of cairo, which is not enabled in the Fedora cairo package and the Fedora cairo maintainer refuses to build cairo with XCB support as long as the XCB backend is declared experimental on upstream. To get awesome from the unofficial repository just run these commands:

```
sudo wget -nd -P /etc/yum.repos.d http://repos.fedorapeople.org/repos/thm/awesome/fedora-awesome.repo
sudo yum install awesome
In case you're feeling adven-
```

/etc/xdg/awesome/. Copy it to `~/.config/awesome/`, you might want to create the directory before copying it though.

Beautiful is a lua library that allows you to theme awesome using an external file. It provides an abstraction using which you can dynamically change the appearance of awesome without having to touch `rc.lua`.

To start using **Beautiful**, just add the following line to the beginning of `rc.lua`, `require('beautiful')`. To start using Beautiful you must initialize it with a theme file: `beautiful.init("path_to_theme_file")`. This line will be there in your configuration but the path inside will be `/usr/local/share/awesome/themes/default/theme.lua` or `/usr/share/awesome/themes/default/theme.lua` depending on your distro. Replace this with the path to your theme file, the best place to keep them is a themes directory in `~/.config` folder containing your `rc.lua` file. The awesome wiki has got loads of user generated themes that you can use, which can be found here http://awesome.naquadah.org/wiki/Beautiful_themes



The Awesome Window Manager UI

dwm, it aims to be an extremely small and lightweight window manager. Here are a few tips and tricks to get you started.

Installing Awesome

Quite a few distros out in the wild distribute Awesome through their package managers. If you’re on Debian/Ubuntu/Mint, the installation

turous you can always build Awesome from the source.

Theming Awesome

Awesome itself has been written in C, but you can use Lua scripts to extend it as per your liking. A recommended step before you start customizing awesome is to configure the configuration file, `rc.lua` to your home directory. Usually the `rc.lua` file resides in

widgets that you’re going to use, so you don’t have a bunch of them sitting around hogging your memory.

The actual widget creation and displaying part will require a lot of typing, for example if you want to display a CPU usage graph then you’d have to create a widget by adding the following code to your `rc.lua` file.

```
-- Initialize widget
cpuwidget = awful.widget.graph()
-- Graph properties
cpuwidget:set_width(50)
cpuwidget:set_background_color("#494B4F")
cpuwidget:set_color("#FF5656")
cpuwidget:set_gradient_colors({ "#FF5656", "#88A175", "#AECF96" })
-- Register widget
vicious.register(cpuwidget, vicious.widgets.cpu, "$1")
```

And then to display it you’ll have to add it to the any wibox (statusbars and titlebars). Just add the widget variable (here `cpuwidget`) to the wibox array in your `rc.lua` file. Awesome provides a host of widgets for you to use, for an indepth look at awesome widget types and objects, how they work, their properties and so on, check out the wiki entry at http://awesome.naquadah.org/wiki/Widgets_in_awesome

Awesome on Gnome

To get the best of both worlds with Gnome you can use awesome as your window manager inside Gnome. How to do this will depend on your Gnome version, if your Gnome version is above or equal to 2.12 but below 3.0 you can run the following commands

```
gconftool-2 --type bool --set /apps/nautilus/preferences/show_desktop False
gconftool-2 --type string --set /desktop/
```

Vicious

What is a desktop environment without widgets, eh? Awesome has got a brilliant modular widget library called Vicious. To start using Vicious you’ll need to install it, it’s quite straightforward to do so in Ubuntu, just type in `sudo apt-get install awesome-extra` and you’re done. Or you can clone the github repo and move the extracted tarball to `~/.config/awesome/`.

The process to use Vicious is similar to Beautiful, just add the line `require("vicious")` to the `rc.lua` file and you’re good to go. The best thing about Vicious is that it only loads the

gnome/session/required_components/windowmanager awesome

In case your distro didn't provide /usr/share/applications/awesome.desktop, then you'll have to manually add one at ~/.local/share/applications/awesome.desktop which reads

```
[Desktop Entry]
Version=1.0
Type=Application
Name=Awesome
Comment=The awesome launcher!
TryExec=awesome
Exec=awesome
```

If you're using Gnome between versions 3.0 and 3.4, then the best way to go about this is firstly go to System Settings > System Info > Graphics > Forced Fall-back Mode ON. This disables the Gnome 3 Shell, which is incompatible with exotic window managers.

Now, create a file called .gnomerc in your \$HOME with the following contents:

```
export WINDOW_MANAGER=/usr/local/bin/awesome-wm
```

Then you can create an executable script at /usr/local/bin/awesome-wm with the following

```
content:
#!/bin/sh
awesome &
```

Awesome on KDE

Create a new file called awesome.desktop in /usr/share/apps/kmsrver/windowmanagers/ (or your system's equivalent; the folder will probably contain openbox.desktop or metacity.desktop as well). Edit it and replace the contents with

```
[Desktop Entry]
Exec=awesome
TryExec=awesome
Name=awesome
```

Now, you should be able to choose "awesome" as window manager in System Settings

> Default Applications > Window Manager. It is advised that you disable Plasma, by removing or renaming /usr/share/autostart/plasma.desktop

GOOGLE READER

RSS is probably one of the best inventions of the past decade. It brings the latest updates of all your favourite websites in one place hence making it easier to access. But if you are subscribed to hundreds of sites then things can get unmanageably out of hand. Here are a few tips and tricks to help you spice up your Google Reader.

Clutter free Google Reader

If you use Google reader, then you must be familiar with the cluttered interface that it offers. The problem is severe for those who use reader to actually read news and not have a quick glance at the headlines. *Google Reader Readable*, as the name suggests, takes care of the flaws of the interface and makes it good to look at. It even gets rid of the sidebar until you hover your mouse pointer over it.

Link: <http://dgit.in/Lx3b8t>

Stylish Google Reader

This app customizes your reader to your liking. If the default styles in google reader are not your thing then "Reader Plus" for Chrome is just what you need. It allows you to add, delete, edit nearly everything that you can imagine. Be warned that it's not the best interface in the world but if you want to change the look and feel of Google Reader then Reader Plus is just fine. On the other hand, if you want more customization options then you have "Stylish" a more comprehensive tool.

Link: <http://dgit.in/NCu6mL>

Toolbar Subscription

Why Copy-Paste the URL of the site that you want to follow when you can do that with just a click. Firefox has this feature Built-in but for our chrome users there is "RSS Subscription Extension". This extension offers a two click approach to add the site that you are currently on to your google reader subscriptions.

Link: <http://dgit.in/NmGolO>

Get update notifications

If you constantly check your google reader for updated feeds, don't! It's such a waste of time. Just install Google Reader Notifier(<http://dgit.in/PgKLdZ>) for Chrome or Google Reader Watcher(<http://dgit.in/MwbiEE>) for Firefox. First we'll have a look at Google Reader


Notifier. It adds a small blue colour RSS sign besides the address bar on Chrome. it also mentions the number of unread feeds in red, making life easy for you. For those who love Firefox, after installing Google Reader Watcher, take a trip to the add-on

option panel and enter your Google account information. You can customize the update check frequency, the counter etc. Once you're done with that, just click OK and you'll see the RSS symbol besides your address bar with the number of unread updates.

Google Reader inline

Isn't it really annoying when the RSS feed just truncates the article and you have to click on a link to leave your RSS reader to continue reading the article? Well the solution to




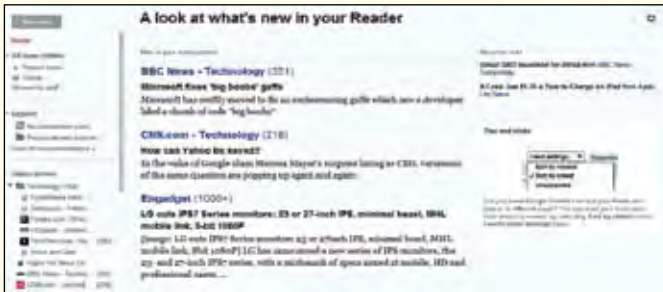


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Inline Google Reader extension

your problem is *Google Reader Inline* available on the chrome web store. The extension takes away the hassles of going back and forth from your RSS reader by displaying the whole article in an overlay. The concept is really nice and makes reading the feeds easier for the user.

Link: <http://dggit.in/Md1zCG>

Integrate with Gmail

Google Reader Integrator integrates Google reader box with Gmail sidebar. Once you integrate your gmail account with your Google Reader, you have a separate menu for your RSS feeds. It is nice if you want everything in one place.

Link: <http://dggit.in/Qg46kf>

Mac OS X theme

This one is for our Mac lovers(<http://dggit.in/NARgK4>). As the title suggests, this theme basically transforms your Google looking Reader into a Mac like Google Reader.

Back Up your Reader

If you want to backup your google Reader Feeds then just go to Settings>Import/Export. Here you can Export or Import your feeds to or from your Hard Disk. It's like backing up your Email or Phone Book. If you religiously follow feeds it is a nice way to backup information.

Offline Access

Google products usually have Chrome applications to allow offline access. Google Reader

currently doesn't. To follow your subscribed feeds when you don't have internet connectivity you can install FeedDemon. You can use FeedDemon at home, your office, or anywhere you go and keep your feeds, tags and shared items synched between locations.

Link: <http://dggit.in/MzaZgc>

One for Linux

LightRead is Google Reader Application for Ubuntu OS. It is a simple interface with no unnecessary "distractions", just a simple clean interface for you to read your latest feeds. Apart from the ability to sync to Google Reader, the application offers offline support for the dreaded times when you don't have an internet connection near you. a bubble pops up after a successful sync and the unity launcher displays the count of the number of unread feeds. In-App search and the ability to rename feeds is a feature that makes working with the application simple for the user. To try it out, just add ppa:cooperjona/lightread to your Software Sources, update, then install the 'lightread' package.

BYPASSING INTERNET BLOCKS

If you are really desperate to get the snoop on one particular website but your ISP has it blocked for some moral/religious/legal/ridiculous reasons then there are quite a few ways of getting across. Read on for some of the most popular ones.

Proxy web site

A proxy web site is the simplest and undoubtedly the most popular service one goes to for circumventing internet blocks and needless to say there are many such services. Popular among them being Hidemyass.com, which comes with a whole bunch of services geared towards...well..hiding your behind! It has its own list



of IP:Port proxies, anonymous email, anonymous referral service etc.

Popular free proxies

- Hidemyass
- Anonymouse
- Proxify

Browser Plugins

Browsers plugins allow you the functionality of proxies without going to those websites. They can be enabled on the go, switched on and off as required. Proxy Switchy! is one such plugin which allows you to setup multiple proxies and switch between them as and when required. You can also generate rules which are web site specific so that whenever you connect to the specific web site, the proxy rule will be activated immediately.

Popular plugins

- Proxy Switchy!
- Hidemyass

Convert it into PDF

These services are pretty neat, they have their own proxy network. The catch is that they convert the requested web site into a pdf document and then allow you to download that document or have it emailed. This helps reduce a lot of bandwidth because the user is compelled to go through a long procedure to get to each page compared to clicking.

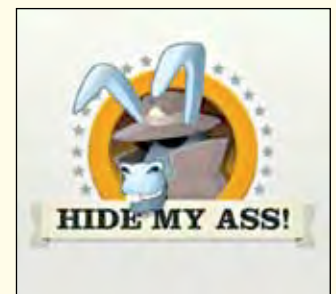
These sites parse the entire page and even separate the links so that you can navigate further into a website, it just that for each link you'll have to copy it from the pdf and paste it into the web site or e-mail it.

Popular services

- www.web2pdfconvert.com
- www.pdfmyurl.com

VPN

A VPN (Virtual Private Network) is a virtual network created over the internet across vast geographical boundaries. Each node in this network acts as a proxy (transparent or anonymous) and all data within the network is encapsulated and encrypted. So anyone snooping on your connection has absolutely no way of figuring out what data is being transmitted as it all seems the same. So your privacy is guaranteed, there are



numerous free as well as paid services which do a great job on protecting your connection.

Popular VPNs

- proXPN
- GPass

Setup your own proxy server

When you aren't satisfied with most services out there then maybe it's time for you to setup your own proxy server. You can volunteer your server as a node to many of the popular services out there or create your own private proxy service for your friends and family. Refer these tutorials on how to setup your own proxy servers.

<http://dggit.in/NYkPHT>

<http://dggit.in/MCwjOB>



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WHEN THE PEOPLE EXERCISE THEIR POWER

INDIA'S FIRST TRUE 'GADGET AWARD' CHANGES THE RULES OF THE GAME - HANDS THE VOTING POWER BACK TO THE ULTIMATE AUTHORITY: THE PEOPLE!



On 11th July 2012, a new chapter on the adjudging of technological excellence was scripted. What began as an effort to recognize dynamism and innovation soon became an institution; recognizing and awarding only the most cutting edge gadgets focusing on every aspect that gave TECHLIFE – The Lifestyle & Gadget Awards their “WOW factor”.

Techlife Awards 2012 went a step further with its new theorem: Power to the people. In this new avatar, Techlife Awards introduced several alterations to the award. This included:

- Introduction of 6 people's categories thereby empowering the user community to decide who according to them was the most deserving entrant.
- Introduction of the Corporate Activation Program, which extended to 160 corporates across 8 cities. A 'Call to Vote' engaged consumers across Mumbai, Delhi, Bangalore, Pune, Chennai, Hyderabad, Baroda and Ahmedabad in real time.

- Popular Voting across 6 categories - Smartphones, Tablets, Laptops, Cameras, Apps, and Online Retail (E-Commerce).

In addition to this, Techlife Awards 2012 also brought together on its platform the gamut of gadgets spanning 26 categories that made it to consumer markets in 2011. This approach not only brought to the table a superior knowledge base, but also reached out to scores of people. In keeping with the times, “TECHLIFE – The Lifestyle & Gadget Awards 2012” also marked its presence on the social networking circuit.

Techlife Awards 2012 also introduced the concept of “Experts Sieve, Consumers Select”, which meant that the evaluation process also went through a detailed back end research undertaken by Ernst & Young and Digit. While Digit brought with it a mammoth nationwide circulation of about 1,00,000 and readership of over 2,29,000; Ernst & Young lent their expertise in process validation, tabulation, and in-depth consulting with regards to eligibility criteria and evaluation parameters.

This year also saw TECHLIFE – The Lifestyle & Gadget Awards partner with 'You Broadband' – the country's leading independent ISP. Here's what EVS Chakravarthy - CEO of this ISO 9001-2008 company, had to say about this partnership, “Broadband usage is gradually moving from a PC to PC and multiple devices. Soon we will witness the per capita screen size moving up significantly in India. Innovative Broadband service providers would love to be associated with a platform like Techlife Awards, as this would be a perfect medium to be at the center of the smart device choice process by customers who use

“The success of Techlife Awards 2012 is the testimony of the interest and enthusiasm of the consumers in recognizing great products and brands in consumer tech space in India.”

– Soham Raninga
Editor – ThinkDigit.com



Top left (clock-wise): Mr. Anupam Rahi from Trend Micro handing the Techlife trophy | MOC's Mandira Bedi & Abhimanyu Radhakrishnan | Mr. Satish Chavva with Mr. Devinder Singh of Reliance Digital | The jury members at the panel discussion | Mr. Paul Shoker

these devices for broadband access. While the devices have features YOU Broadband brings them to life."

The exotic Leela Delhi welcomed the distinguished guests at the awards night that was hosted by the glamorous duo of Mandira Bedi and Mr. Abhimanyu Rad-

hakrishnan from Technoholik. The award ceremony honored only the truly, truly deserving candidates. The most coveted of the 26 categories were the Popular Choice Awards, which were bagged by the hottest favorites. Anushka Sharma won the "Gadget Personality of the Year" and the "Jury's Choice Gadget of the Year" went to iPad 2. Soham Raninga, Editor ThinkDigit.com had this to say about the event, "Techlife – Lifestyle &

Gadget Awards is a proven platform that recognizes best consumer technology products and brands in India...The popularity of Techlife Awards as a platform along with 11 years of testing experience of Digit Test Labs is undoubtedly a winning combination."

The celebrations, in customary style, continued late into the night with camaraderie and rivalry sharing a rare toast together!

"Techlife Awards would be a perfect medium to be at the center of the smart device choice process by customers."

– **EVS Chakravarthy**
Chief Executive Officer
YOU Broadband and Cable India Ltd

Popular Choice Awards

Category	Winner
Smartphones	Samsung
Tablets	Apple
Laptops	Dell
Cameras	Sony
Applications	Angry Birds - Rio
Online Retail	Flipkart



Security Partner 	Radio Partner 	Television Partner 	Gift Partner 	Outdoor Partner 	Travel Partner 	Trophy Partner 	Process Advisors & Official Tabulators 	Hospitality Partner
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Airlocks disengaged. Commence docking procedures...



After navigating distant space and time (and the dark recesses of your front pocket) your iPod needs to dock with a worthy docking station. Which one should it be?

Siddharth Parwatay
siddharth.parwatay@thinkdigit.com

Take a moment to look at those devices atop. The chrome and metal beauties gleaming at you are not merely speakers. They have speakers yes, but they're something more; a category of gadgets that was spawned by another iconic device - the iPod. Beyond audio, these sound systems have another purpose. Style, design, sophistication - they're all this

rolled into a set of speakers and a docking station.

For our test we received a wide range of iPod Docks from every conceivable price range and category. The price band ranged from ₹2,999 to ₹85,000. We split up these aural beauties into three categories based on use case. The sub ₹6,000 docks were distinctly bed-side devices. They had the whole alarm clock and snooze system going for them, besides of course giving you a place to cradle and simultaneously charge your

iPod, iPhone or iPad. The other distinct category was portables - docks that have battery backup and are therefore portable. The remaining were all thrown in together to battle it out. Let's start with the first category.

Bedside docks

This category featured the Philips Fidelio DS 1100, Logitech's Bedside Dock for iPad and the F&D i224. The contender from F&D incidentally was the dock with the lowest price tag. Let's look at each one.

Philips Fidelio DS 1100

The DS 1100 is undoubtedly the best looking of the three bed side docks. It's shaped like a donut with the iPod sitting in the center. The body is made of this milky white translucent plastic through which shines a digital clock on the front. The bottom of the device emits a soothing soft glow so you won't fumble to reach the dock at night. The drivers are housed behind a gray circular fabric and are geared to produce omnidirectional sound. Some of the cool features include



HOW WE TESTED

Performance: Each iPod dock was subjected to a series of frequency tests. The first volley of test samples included tones at various frequencies such as 30 Hz, 50 Hz, 100 Hz, 250 Hz etc. This was followed by a 16bit 22kHz - 20Hz sweep. Here we checked for distortion and any sort of clipping. Scores were given on a scale of 1 to 10 but with a fixed performance threshold. That means that only when a dock was able to reproduce a tone at a certain quality level was it given an overall good score. This was done by amplifying the scores on 10 to scores on 100 via a weighted formula to amplify variance. For example, if for the 250 Hz frequency a dock was given a score of 4 on 10, it meant that it was able to reproduce the tone but with accompanying distortion. In this case it got a final score of $4 \times 1 = 4$. If it got 5 then the final score was 5×2 , and so on.

The next set of samples tested the qualitative aspects of performance. Each track tested

a particular aspect of audio tonality such as stereo separation, vocal performance, instrument separation, and detail etc. Tracks were also selected based on different genre:

- A classical sample with a 200 year old string bass to check string resonance.
- Bass reproduction on Massive Attack's **bass** heavy track Angel for accuracy of lows.
- Chris Rea's track *Call On Me* to check if speakers retained that husky edge in **vocals**.
- **Stereo separation** was tested on an old favourite: *Whole Lotta Love* - Led Zeppelin.
- **Binaural Stereo tonality** sample had two instruments in different pitch but in harmony
- The operatic orchestration on Therion's *O Fortuna* was used to judge **highs**.
- We used an edited version of *Selkies* by Between The Buried and Me to check for **instrument separation**.
- Dream Theater's *Pull Me Under* was used to gauge a **mixture** of performance areas

same as *Time* by Pink Floyd for **detail**, which is in itself a masterpiece of production.

- **Percussion** on *Brutal Hearts* by Bedouin Soundclash is good enough to literally shake up any driver.

Test tracks were either fully uncompressed .wav files, 320 kbps MP3 or Apple Lossless. Refer to the table to see what weights we assigned to the frequency and qualitative tests, design and build, and volume.

Features: Every feature was assigned a weight. The features included fairly essential ones as Stereo playback and different auxiliary sources, to bonus features like iPad docking. Stereo was given a weight of 20 per cent, same as the ability to connect via USB and play music off the PC. In the final scoring, Performance accounted for 80 percent, the rest contributed by Features.

the ability to set multiple alarms via the custom app designed by Philips. The Philips app which works with all of their Docks turned out to be the best app in the test. It lets you set multiple alarms, lets you wake up to music on your iPod, and even some nature sounds (like ocean waves, birds, etc) which come with the app. The app can stream tracks from TuneIn Radio, which features a few local channels. It does not have an in-built FM tuner so this is a small way in which the absence can be circumvented. The app does have its flaws though. It does not allow you to wake up to an FM station. Not much can be expected in terms of performance at this price point. There isn't much bass to speak of and the last 5 seconds of our 17Hz to 20Hz sweep were blank. Some frequencies around 500 Hz were distorted. The 4W speakers will fill a small room with sound and just about enough background music for your morning wake up routine.

The bass line on *Call On Me* literally obliterated the diaphragm on what must imaginably be really tiny drivers. Whatever customisations Philips has made for Omni directional sound has made stereo separation almost non-existent.

Logitech Bedside Dock

In terms of looks this is one tacky device. The build quality is also lackluster with buttons resembling the kind you'd find on VCRs twenty years ago. The only performance area it scores above the Philips Fidelio 1100 is stereo separation. Otherwise distortion pretty much began from the upper highs to the pure mids. Binaural stereo tonality test caused reverberation throughout. It's almost as if something inside the casing resonates at multiple frequencies - that bad. There's a closed bass reflex port at the back but it does little to increase the bass. The device gets feature points for an LCD display, a hardware

(non-app-based) alarm that works irrespective of external power thanks to two AAA batteries, and an FM radio tuner built into the device.

F&D i224

The i224 docking station's triangular shape does catch your eye. It sounds just as good (or bad) as the Logitech as long as you don't take the volume past the two-third mark. The Logitech seems to have slightly larger drivers and is better with percussions. But this little guy is loud. If you want your dock to make a noise and make its presence felt, the F&D i224 won't disappoint.

Category verdict: The F&D is exceptionally cheap and hence

managed to tip the scales of value in its favour, winning our Best Buy for this category. However, go for it only if you primarily need a loud iPod dock. The Logitech Bedside Dock should be avoided at all cost as being able to dock an iPad can never be reason enough to justify that purchase. The Philips Fidelio 1100 is the best performing dock in this category and won us over with its warm sound signature and good looks.

Portable docks

Our motley crew of iPod Docks had three that were a little different from the rest. They came with carrying sleeves or built in handles, were portable and worked on battery. They either had built-in lithium ion / nickel metal hydride batteries or worked on AA batteries. Let's look at the three in detail.

Yamaha PDX-11

This is one strange piece of audio equipment. Strange for a couple of reasons - it's not stereo, it



F&D i224

Tried & tested



	Philips	Logitech	F&D	Yamaha	Logitech	Philips	B&W	Onkyo	
	DS1100	Bedside Dock for iPad	i224	PDX-11	S715i	DS7550/12	Zeppelin Mini	SBX-200 (B)	
Performance (So 80)	2.27	1.27	1.52	7.68	8.91	3.81	12.79	15.55	
Features (So 20)	4.80	8.40	7.00	1.80	5.80	5.60	12.00	9.40	
Total (So 100)	7.07	9.67	8.52	9.48	14.71	9.41	24.79	24.95	
Price	₹4,999	₹5,699	₹2,999	₹8,490	₹12,944	₹8,999	₹30,000	₹19,500	
Specifications									
Power Rating (RMS Watts)	4	6	4	8	10	10	36	40	
Rated Frequency response (Hz - kHz)	NA	20 - 20	140 - 20	NA	75 - 20	NA	38 - 20	40 - 20	
Performance (So 100)									
Frequency Test (Wt 30)									
30 Hz	1	1	1	10	2	1	2	4	
50 Hz	1	1	1	10	3	1	4	10	
100 Hz	2	1	1	42	10	4	10	42	
250 Hz	2	1	1	10	10	10	42	42	
500 Hz	3	1	3	10	10	3	24	24	
15,000 Hz	4	3	2	4	4	4	24	4	
Sweep	3	2	3	10	10	3	42	26	
Quality Tests (Wt 35)									
Bass	4	3	3	10	42	10	45	42	
Bass (Classical sample)	3	2	2	24	42	3.5	11	24	
Vocals	3	2	3	42	24	4	24	42	
Stereo Separation	2	4	2	0	42	4	24	42	
Binaural Stereo Tonality sample	2	1	2	3	24	3	42	10	
Instrument Separation	3	3	3	3.5	10	3	10	10	
Highs	3	2	3	26	3.5	3.5	26	10	
Mix	2	2	2	3.5	4	3	4	4.5	
Detail	3	2	3	10	4	3	24	10	
Percussion	2.5	2	1	4	4	3.5	4.5	24	
Decibel Level / Volume (Wt 10)	4	4	6	15	30	15	30	60	
App Score	42	0	0	0	0	42	0	4	
Design and build (Wt 25)									
Device Build	24	4	4	42	24	24	24	42	
Aesthetics	40	7	7	55	40	35	80	30	
Features (So 10)									
Bluetooth	0	0	0	0	0	0	0	10	
3.5 mm	10	10	10	10	10	10	10	10	
RCA	0	0	0	0	0	0	0	0	
Flash storage playback via USB	0	0	0	0	0	0	0	0	
PC playback via USB	0	0	0	0	0	0	10	0	
SD Card	0	0	0	0	0	0	0	0	
FM (Y/N)	0	10	10	0	0	0	0	0	
Composite Video Out (Y/N)	0	0	0	0	0	0	0	0	
Remote (Y/N)	0	0	10	10	10	0	10	10	
App (Y/N)	10	0	0	0	0	10	0	10	
Flip iPod	0	0	0	0	0	0	10	0	
Battery (rechargeable / cells)	0	0	0	10	10	10	0	0	
iPad support	0	10	0	0	0	0	10	10	
Stereo support	10	10	10	0	10	10	10	10	

works on 6 AA batteries and it's almost as if Yamaha has taken a studio monitoring speaker and ported it to take the iPod as a source. The speaker performs quite well. Bass management is brilliant - no matter how much you increase the gain on a low frequency sample, it never gets played by the tweeter thereby

avoiding that harsh buzz. The high tweeter is also very good. All your cymbals and hi-hats sound nice and sparkly. The octagonal housing and steel grab handle give it that distinctly industrial aura and make it look quite trendy. The only problem is that it's not that loud. If you play something that has too much

density it will begin to distort. We tried running it on regular (non-duracell) batteries and it gave roughly one hour twenty minutes at 85 percent volume - far lesser than the rated 8-hrs.

Logitech S715i

The dock is all black and you can see an unusually large number of

drivers through its metal grille. There are six in total but two of these are passive radiators. The 30-pin iPod connector is neatly covered by a hard plastic flap which opens up to double up as a stand that keeps the speaker set upright. The device seems well thought out from the perspective of portability. Ports



Contact these Brands!

Interested in buying any of these iPod Docks? Head over to <http://digit.in/ipodcts> for contact info of these brands

Explorer's heritage of Antarctica

Google's street view just became more interesting with Google adding 360 degree images of the South Pole and houses used by the early south pole explorers

sound reproduction of the SBX 200 may not be true to source but is certainly pleasing. Mids are slightly enhanced to give it that warm "I can play most genres" appeal. Distortion occurs past the 80 per cent mark. Bass is not tight, notes are not easily distinguishable but it has that thump. The remote matches its plain vanilla stylings but it has some useful buttons - for instance, muting. It gets bonus points for being able to comfortably fit an iPad without blocking any drivers. At 100 and 250 Hz the Onkyo performs better than the more expensive Creative Zisound D5. In fact the SBX 200 is the fourth best performer in the test. The ABX-100 though is very mediocre.

Chroma iPod T Speaker

This iPod dock comes in the form of a long floorstander. It has a subwoofer at the bottom half with front facing bass vent. Switch it on and you get something that can loosely be described as sound. The buttons are tacky, there isn't any stereo separation, the feet don't screw in properly and there is little in terms of finish on the device. What's it good for then you ask? Belting out loud music. Other than that it has a lot of connectivity option. But in terms of sound reproduction there is a lot left to be desired. Distortion kicks in as soon as the instrument density increases. There is little detail and clarity. The bass performance is not bad, in the sense that there is quantity. At a price tag of ₹9,000 and a street price that's still cheaper, the device bags our best buy award.



Chroma iPod T Speaker

Creative Zisound D5

The D5 resembles a black monolithic cuboid, winning a red dot award for its minimalistic design. The 30-pin connector jack on the device that goes into your iPod is in fact a bluetooth transmitter. It's small, attaches to your iPod effortlessly and easy to carry around. When docked physically with the iPod, there is no difference in sound quality so we suspect that contacts on the back of the dongle are just for charging and it continues to stream wirelessly even when docked. Despite supporting a codec for high-quality streaming, its performance is lackluster. Upper mids and bass frequencies on our sound sweeps were distorted. There is severe lack of detail as well.

JBL OnBeat Xtreme

The JBL looks absolutely stunning with its jet black metal grille, cross weave pattern and chromed lining. Besides sporting nice design, the OnBeat Xtreme is brilliant at waking you up. Its thump, clarity will surprise

even the biggest sceptics. Certain tones sound really good on the device - string bass, for instance. But strangely vocals lack body. Despite its bass focus, it's not lost out on detail, clarity and sharpness. While the Philips Fidelio DS9000 mellowed down the edge in our metal tracks, this one maintained the hardcore appeal that a prog/death track deserves. The JBL did have issues with certain frequencies

on our sweep but it has several things going for it. Its packed with features such as Bluetooth pairing, iPad docking ability, landscape/portrait capability and at the same time the price tag of ₹24,990 is good value for money. This makes it our Editor's Pick.



JBL OnBeat Xtreme

Philips Fidelio DS 9000

No other dock could match the thump and volume levels produced by this device. There's only one word to describe the sound produced from this device - "rich". It's the kind of room-filling aural experience one would expect from a device like this. Bass is powerful and deep - the sort that rolls around in the pit of your stomach and is hard hitting as well. Some of our test tracks didn't go down well with this system though. The low notes at the start of Angel left a sort of "burring" in the drivers toward the end of each bass note. The sound is more rounded (full bodied) compared to the Beosound but definitely coloured. The build is excellent, its wood body adds not just acoustic appeal but classy allure too. Its expensive sure, but worth considering if our next contender is out of your budget.

Bang & Olufsen Beosound 8

As always we save the best for last. The Beosound 8 is in a league of its own. In fact, so far ahead was its performance (and asking price) that we were con-

sidering keeping it in a category unto itself. The Beosound 8 is a monster iPod Dock that produces unmatched clarity and detail. It easily transgresses into audiophile territory and still remains a device for casual use. In our classical bass sample we could hear the shuffling around of the artist. Bass frequencies are played with pristine precision. Crisp precise bass in Angel is a rarity for high-end speakers let alone iPod docks but the Beosound handled it with ease. On our vocal track it managed to maintain that husky edge in Chris Reas voice without producing unnecessary sibilance.

The Beosound looks drop-dead gorgeous. The conical driver units connected by what looks from the front like a pure block of aluminium gives it that otherworldly sense. At the back you have a panel that pops open to reveal the ports - there's no sign of



Bang & Olufsen Beosound 8

a bass port. We popped it open to reveal a large driver and tweeter. Does the performance behemoth have any flaws? If we were to nit-pick the only shortcoming was notices on tracks such as on Pull Me Under by Dream Theater where the double bass hits drift off amongst the heavy riffs and thick instrumentation. But overall the Beosound 8 performed exceptionally well and is our best performer of the test.

Microsoft launches Office Suite

MS launches Office 13 and Office 365 for desktop and web platform in competition with Google's Drive <http://dgit.in/Mkllw6>



Landing an F-35

Though the F-35 are not intended to be used in the Royal Navy until 2018, test flights of Lightning II have already begun

GPU Comparison

The tale of 2 GPUs....

The saga continues as the two competitors duke it out yet again...

Mithun Mohandas

readersletters@thinkdigit.com

March heralded the entry of the Kepler (NVIDIA 600) series and we were pretty excited to try out the new cards. Especially since Southern Islands (AMD 7000 series) launched way back in January. For a thorough comparison we did get our hands on quite a few cards and no doubt you must have read the reviews. We simply had to wait till all, if not most of the cards of both families hit the market. Alas

this couldn't be achieved as the HD 7990 is yet to launch at the time of writing this article. Have no worries noble readers for we shall bench the card as soon as it arrives in our hands and you shall have the full picture, this we promise.

WHAT'S NEW?

As usual the entry-level cards from both manufacturers turned out to be rebranded cards belonging to the previous generation. Except for a few which are actually made on the new 28nm process. AMD has made all low end cards as OEM

models so we couldn't get our hands on any of them.

PCI-E 3.0 has now become the standard with the new series except it'll be quite a while till the bandwidth can be properly utilised. Games are far off from even hitting the PCI-E 2.0 bandwidth cap let alone 3.0. The real beneficiaries of the new standard could well be the ones who deal with OpenCL & CUDA programming. Computational tasks are traditionally very CPU and memory-heavy. With the increased amount of memory and bandwidth, programmers have got a shot in

the arm, and a pretty mighty one at that.

DirectX 11.1 is supported by cards from both of the manufacturers. Windows 8 which is shipping out on October 26 will natively support DirectX 11.1. Though there will be no major updates with this version it still offers better integration of the XNA framework.

IT'S NOT JUST FOR GAMING

Among the Top 500 supercomputers of today, 52 are based on Tesla GPUs from NVIDIA. AMD is, however, far off but in



our tests, the cards were pretty powerful. Turns out they are as good as the current CPU supercomputers and are used in the field of medicine, chemistry, astrophysics, physics etc.

GPUs have a lot of simple cores which are geared towards simple instruction sets whereas CPUs have 2-8 cores which are general-purpose cores that can compute a wide variety of instructions. GPUs can deliver up to a teraflop of computation at a fraction of the power compared to CPUs while keeping the die size constant.

Anyone can have their own little supercomputer by hooking up a few cards in SLI/CF. Stuffing a mid-range motherboard with a couple of 680s or 7970s can provide immense computing power which small companies can make use of without investing a lot into building a computer cluster.

SLI VS CROSSFIRE

Once we were done, it was pretty evident that the scores were in favour of SLI in most of the gaming benchmarks, especially at higher resolutions while CF reigned supreme at lower res. It doesn't make much sense to spend all this money, get the best possible configurations and then play at low-res to work out the guilt of spending so much. The CF whoops SLI's behind when it comes to OpenGL/OpenCL computation benchmarks.

3D Mark 11

SLI is ahead in all benchmarks except on the Extreme configuration, but those are within the error margin of 2%.

GAMING

Unigene Heaven 3D

Again the SLI is ahead at high resolutions with a huge lead of 29% while CF takes a meagre lead of 11% at low resolutions.

HOW WE TESTED

RIG:

Motherboard - ASRock X79 Extreme6/GB
Processor - Intel Core i7 3960X
RAM - KHX2133C11D3K4/16GX (Quad Channel)
SSD - Kingston HyperX SH100S3 120GB
SMPS - CoolerMaster SilentPro M850
Monitor - Alienware OptXTM AW2310 3D

This year the focus has shifted to get a better overview of the capabilities of a GPU. So aside from gaming benchmarks we had several OpenGL compute benchmarks. We tried to maintain the parameters the same. Both manufacturers have technologies which are proprietary and provide a lot of computation power if utilised properly, however, it would be unfair to the other manufacturer if these things were focussed upon.

Performance

3D Mark 11

For its focus on DirectX 11 which include tessellation, shaders and multi-threaded CPU tests.

AliensVsPredators

Quite a scalable game which plays well on low-end as well as high-end cards.

Sniper Elite V2

Quite similar to AliensVsPredators except that it is more stressful than AVP and heated up the GPU quite well.

TessMark

Uses the OpenGL 4 API to test tessellation on all supported GPUs. Preset used - "Insane".

FurMark

Another OpenGL test which can stand true to its label as a "burn-in test". We achieved the highest temperatures on all cards using this benchmark.

LuxMark

An OpenCL benchmark tool which renders a scene. Unit considered - "Samples/sec".

AEEncryptDecrypt

Encrypts an image using 128bit AES encryption. For the tests we ran 1000 iterations. However, the results though being within a narrow range of values varied greatly across multiple runs, hence we've included this just as an indicator and haven't included them in the score.

Features

By now everybody must be aware that more the memory does not always provide for better gaming performance. BIOS switches are almost a necessity given the cards that come at a high price do offer the capability to scale well and remain stable. These cards tend to come with more power phases and allow for stable overlocks. We did find one card which was a 7970 and didn't come with a BIOS switch. This is absolutely ridiculous especially when the damn thing cost Rs.10K higher than the other 7970s all of which had a BIOS switch. Custom coolers are always a welcome feature. Copper heat sink + heat pipes + good fans = A really good cooler.

Build quality

The cards were judged on the choice of materials used for the casing of the cards. Reinforcement was also accounted for as it is of prime importance. The big cards tend to warp after quite a while given the high temperatures and the fact that it is kept at a 90 degree angle to the motherboard. Heat pipes were given importance as well. As for overall cooling, judging that is difficult as all other parameters need to be equalised to test cooling performance, so we kept it simple and points were given for those who blew air outside the case rather than for those who kept it circulating inside.

Resident Evil

The performer in this benchmark seems to be SLI with a lead of 8-11% but the scores varied by a huge margin each time the benchmark was run.

Dirt 3

The results turned out to be similar to Resident Evil except this time it was in the favour of CF by the same amount.

Lost Planet 2

SLI was ahead by upto 9% on high resolutions while the lead reduced at lower resolutions.

Aliens vs Predator

CF takes the lead by quite a wide performance margin as high as 33% over SLI.

Sniper Elite V2

Again CF scooted straight ahead but with a greater lead of 72%.

That's 126 FPS ahead! Since this is a fairly new benchmark we believe that driver issues once resolved will allow NVIDIA to provide better performance, however, we don't see it beating CF with the same.

Batman: Arkham City

NVIDIA was the straight winner. What was puzzling was that the NVIDIA logo at the start of the game stuttered like hell even on the flagship Radeon card while even the NVIDIA GT610 which is a rebranded GT520 managed to smoothly render the logo. No doubt the game is optimised for NVIDIA and they've made it quite clear. However, this doesn't mean we can discount SLI's lead over CF as they did manage a good 16%.

Iterations	CPU		GPU	
	Encrypt	Decrypt	Encrypt	Decrypt
1	0.185765	0.185286	0.195105	0.201759
100	3.99462	4.00582	0.300444	0.320631
1000	39.1105	40.5503	1.39408	1.29666
10000	393.684	384.493	9.91126	10.8993

That's the power of your GPU. (GTX 680). Time taken for the operation. (Seconds - Lesser is better)



Darksiders II launches this month

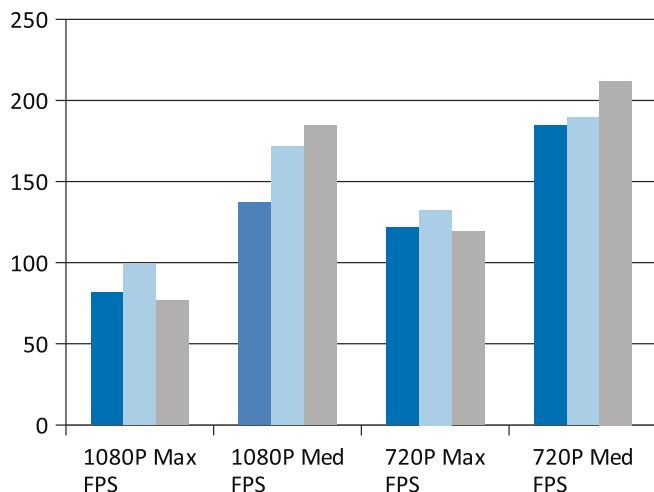
The sequel to the popular hack and slash game to hit the shelves on August 14 in North America and Europe
<http://dgit.in/PPPPhjN>

MSI's Reflex SSD line details out

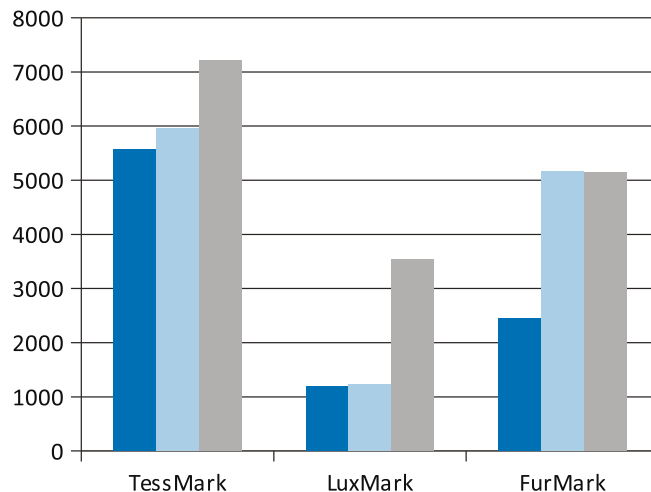
MSI is about to enter the lucrative SSD market and details of its initial line up have leaked online
<http://dgit.in/QvAxLv>

GPU Comparison

■ GTX 690 ■ GTX 680 SLI ■ HD 7970 CrossFireX



Unigine Heaven 2.5



OpenGL/OpenCL scores

OPENCL/OPENGL COMPUTATION

SLI didn't stand a chance when it came to the standard computation benchmark. FurMark which is a burn-in benchmark gave equal

scores to both competitors but remaining benchmarks clearly showed CF as the winner. The rendering in LuxMark was happening at a whopping 3542 Samples/sec while in TessMark AMD

scored way ahead too. NVIDIA was way ahead in tessellation back when Fermi was launched. AMD has been working on shortening the gap and it seems that they have finally done so. Tes-

sellation can be implemented using both CUDA and OpenGL. However, if it is implemented using CUDA like in Crysis 2 then NVIDIA would take the lead as it is optimised for that architecture.

GAMING HAS NEVER LOOKED MORE REALISTIC



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	HIGH-END								
Company	ASUS	ASUS	Zotac	Galaxy	XFX	ASUS	ASUS	Zotac	MSI
Model Name	Direct CU II TOP GTX 680	HD 7970 DCII	GTX 680	GTX 680	R7970	Direct CU II TOP GTX 670	HD 7970	GTX 670	R7950 Twin Frozr
Price	40500	38000	35500	35500	48000	32000	37000	29999	41500
Features	1.7	1.9	0.65	0.35	0.4	1.5	0.6	0.35	1.05
Performance	61.19	60.46	60.41	58.68	58.40	58.25	56.12	54.83	53.08
Warranty	3	3	5	NA	2	3	3	5	3
Features									
Chipset	GK104	Tahiti XT	GK104	GK104	Tahiti	GK104	Tahiti XT	GK104	Tahiti Pro
Engine/Memory Clock	1137 / 1502GDDR5	1000 / 1400GDDR5	1006 / 1502GDDR5	1006 / 1502GDDR5	925 / 1375GDDR5	1059 / 1502GDDR5	925 / 1375GDDR5	915 / 1502GDDR5	880 / 1250GDDR5
Stream processors/ Shaders	1536	3096	1536	1536	2048	1344	3096	1344	1792
Texture Units	128	128	128	128	128	112	128	112	112
ROPs	32	32	32	32	32	32	32	32	32
Memory (MB)	4096	3072	2048	2048	3072	2048	3072	2048	3072
Ports - VGA/DVI/HDMI/Mini-HDMI/DP/Mini-DP	N/Yx2/Y/N/Y/N	N/Yx2/N/N/Yx4/N	N/Yx2/Y/N/Y/N	N/Yx2/Y/N/Y/N	N/Y/Y/Yx2/N/N	N/Yx2/Y/N/Y/N	N/Y/Y/N/N/Yx2	N/Yx2/Y/N/Y/N	N/Y/Y/Yx2/N/N
BIOS switches	Y	Y	N	N	N	Y	Y	N	Y
External Power	8PIN+6PIN	2x8PIN	2x6PIN	2x6PIN	8PIN+6PIN	2x6PIN	8PIN+6PIN	2x6PIN	2x6PIN
Adapters - VGA-DVI/HDMI-DVI/MiniDP-DVI	N	N/Y/N/N	Y/N/N/N/N	Y/N/N/N	N/Y/N/N/N	N	N/Y/N/N/Y	Y/N/N/N/N	Y/N/N/N/N
Other accessories	2X6PIN-8PIN PCIe	2x6PIN-8PIN, 2xMolex-6PIN	2XMolex-PIN PCIe	2XMolex-6PIN PCIe	N	2xMolex-6PIN PCIe	2x6PIN-8PIN, 2xMolex-6PIN	2XMolex-6PIN PCIe	Power cable
Temperature (degrees °C)									
Idle / Load	31 / 58	31 / 60	35 / 81	37 / 80	31 / 73	35 / 59	36 / 78	33 / 79	35 / 75
3D Mark 11									
Performance - Score	10873	8695	9551	9541	8319	9421	8334	8528	7651
Graphics	10878	8279	9341	9346	7863	9129	7879	8156	7145
Physics	13029	12916	13062	13023	12960	13033	12941	13014	12969
Combined	8688	7812	7741	7668	7554	8016	7573	7263	7062
Unigine 2.5									
1080p Max FPS	46.9	51.5	52.3	44.2	48.6	44.1	38.6	40.3	35.5
Score	1180	1297	1318	1112	1225	1111	973	1014	895
720p Max FPS	76.1	68.3	76.6	70.7	63.7	70.9	56.3	63.8	52.4
Score	1916	1720	1931	1781	1603	1786	1418	1607	1314
Resident Evil 5 (FPS)									
1080p Max / Med	178.5 / 206.1	177.5 / 216	172.4 / 201.3	169.3 / 204.8	170.4 / 217.6	168.1 / 208.5	171.1 / 216	162.9 / 204.4	160.8 / 217.3
720p Max / Med	178.4 / 198.3	192.5 / 215.4	181.8 / 196.3	177.6 / 200	196.1 / 217.1	176.8 / 198.8	191.7 / 218.7	176.9 / 198.7	194.8 / 214.8
Dirt 3 (FPS)									
1080p Max / Med	110.54/224.1	93.6/189.73	101.84/221.9	102.11/222.4	89.29/183.3	101.5/215.8	89.26/177.3	92.39/181.96	81.58/170.0
720p Max / Med	155.9 / 223.92	134.06 / 189.04	148.32 / 222.18	146.71 / 223.52	128.34 / 211.28	151.4/226.7	127.5 / 210.73	136.99 / 208.33	119.47 / 207.78
Lost Planet 2 (FPS)									
1080p Max / Med / Low	69 / 99.1 / 122.8	60.3 / 87.4 / 113.8	74.8 / 93.6 / 124.6	75.4 / 92.9 / 122.1	57.4 / 84 / 110.9	65.2 / 93.3 / 117.9	57.7 / 84.4 / 113.3	67.6 / 86.7 / 118.6	52.3 / 76.9 / 110.4
720p Max / Med / Low	92.9 / 112.7 / 131.6	77.3 / 99.4 / 133.1	96.4 / 108.9 / 131.5	96.1 / 109.4 / 134.4	73.3 / 97.7 / 121.8	88.5 / 109.1 / 129.7	73.8 / 96.9 / 121.4	88.9 / 104.9 / 135	68.1 / 94.1 / 121.7
Sniper Elite V2 (FPS)									
1080p Max/Med/Low	24.3 / 80.1 / 154.2	48.3 / 88.1 / 177.5	22.6 / 75 / 153.6	22.5 / 75.3 / 151.3	28.8 / 86.8 / 181	21.7 / 74.3 / 151.3	25.2 / 73.3 / 155.1	20.5 / 69.7 / 142.9	25.7 / 78.2 / 161.5
720p Max/Med/Low	47.4 / 144.2 / 244.1	56.8 / 159.2 / 259.5	44.5 / 138.2 / 228.1	44.4 / 140.1 / 226.9	53.8 / 153.6 / 278.9	43.2 / 135.8 / 227.8	46.9 / 134 / 243	40 / 130.2 / 216.2	48.2 / 142 / 261.5
Batman: AC (FPS)									
1080p Max / Med / Low	57/84/115	67/89/109	51/80/99	51/80/98	65/85/165	57/84/106	63/86/107	50/77/95	57/78/97
720p Max / Med / Low	96 / 111 / 123	109 / 117 / 132	91 / 106 / 122	91 / 106 / 121	102 / 108 / 132	97 / 110 / 124	106 / 114 / 121	92 / 105 / 118	97 / 113 / 122
OpenCL/GL Tests									
TessMark (Score)	6488	3666	5976	5984	3399	5103	3396	4631	3222
LuxMark (Samples/sec)	670	1782	618	618	1711	616	1708	563	1541
FurMark (Score)	2692	2585	2667	2657	2583	2325	3349	2323	2101
AESDecrypt (sec)	1.41037	0.988778	1.18052	1.2312	0.780069	1.26116	0.817297	1.22644	0.872272
AESDecrypt (sec)	1.29874	0.982334	1.52814	1.27633	0.787801	1.36917	0.910495	1.37357	0.882075

MID-RANGE					LOW-END					
ASUS	XFX	MSI	ASUS	ASUS	Zotac	Galaxy	Galaxy	Zotac	Zotac	Galaxy
HD 7870	R7850	R7770	HD 7770 DC	HD 7750	GTX 640	GT 640 2GB	GT 640 1GB	GT 630	GT 620	GT 610
25500	25000	12350	12500	10500	7800	6600	6000	4400	3900	2775
0.85	1.1	0.2	0.7	0.2	0.2	0.15	0.15	0.2	0.2	0.15
50.14	42.64	31.32	31.16	25.44	20.57	20.20	20.19	13.94	10.87	8.63
3	2	3	3	3	5	NA	NA	5	5	NA
PitcairnXT	Pitcairn Pro	Cape Verde XT	Cape Verde XT	Cape Verde Pro	GK107	GK107	GK107	GF108	GK108	GF119
1100 / 1250GDDR5	860 / 1200GDDR5	1100 / 1125GDDR5	1020 / 1150GDDR5	820 / 1150GDDR5	902 / 891DDR3	902 / 891DDR3	902 / 891DDR3	810 / 667DDR3	700 / 533DDR3	810 / 500GDDR5
1280	1024	640	640	512	384	384	384	96	96	48
80	64	40	40	32	32	32	32	16	16	8
32	32	16	16	16	16	16	16	4	8	8
2048	2048	1024	1024	1024	2048	2048	1024	2048	1024	2048
N/Y/Y/N/N/Yx2	N/Yx2/Y/Yx2/N/N	N/Y/Y/N/Y/N	N/Y/Y/N/N/Yx2	N/Y/Y/N/Y/N	N/Yx2/N/Y/N/N	Y/Y/Y/N/N/N	Y/Y/Y/N/N/N	N/Yx2/N/Y/N/N	N/Yx2/N/Y/N/N	Y/Y/Y/N/N/N
N	N	N	N	N	N	N	N	N	N	N
2x6PIN	2x6PIN	6PIN	6PIN	N	N	N	N	N	N	N
Y/N/N/N/N	N	Y/N/N/N/N	Y/N/N/N/N	Y/N/N/N/N	Y/N/N/N/N	N/N/N/N	N/N/N/N	Y/N/N/N/N	Y/N/N/N/N	N/N/N/N
6PIN 10cm Extension	N	2XMolex-6PIN PCIe, fan	N	N	N	N	N	N	N	2xLP Brackets
31 / 77	30 / 55	29 / 69	33 / 55	29 / 55	35 / 61	28 / 46	27 / 48	31 / 73	29 / 53	31 / 55
7199	5614	3762	3740	2740	2371	2370	2367	1253	903	602
6697	5069	3355	3336	2377	2120	2122	2120	1084	788	519
12881	12914	12937	12938	12934	13054	13044	13076	13088	13123	13090
6553	5398	3264	3230	2647	1754	1756	1752	1059	696	494
32.1	35.5	18.2	18.2	13.1	11.1	9.2	9.1	5.9	3.1	1.7
808	895	458	458	330	279	232	230	149	78	43
51.8	49.1	29.8	29.7	21.4	17.4	15.8	15.7	9	5.3	3.2
1306	1237	750	748	540	438	398	396	227	132	80
158.4 / 213.1	130.4 / 211.2	82.7 / 144.5	83.8 / 145.1	68.4 / 120.5	40.7 / 78.8	40.7 / 78.4	40.5 / 78.6	23.3/44.9	12.2 / 23.4	10.5 / 21.6
195.5 / 216	187.5 / 217.2	131.5 / 212.8	132.8 / 213.9	108.4 / 187.7	71 / 132.4	71.3 / 133.1	70.8 / 132.6	41.8/82.2	23.3 / 46.5	19.6 / 38.1
78.68/171.21	57.47/132.7	42.8/107.83	43.53/107.8	28.65/77.16	21.95/63.3	21.8/63.4	21.94/63.2	13.1/35.6	12.8/23.5	12.73/17.0
118.94 / 208.54	91.9/130.93	69.43 / 159.82	69.65 / 160.02	51.05 / 121.85	35.13 / 110.21	35.37 / 110.23	35.07 / 109.99	20.12 / 63.65	12.99 / 42.27	12.88 / 30.07
48.5 / 68.8 / 107.9	37.6 / 54.2 / 104.2	25.7 / 38.3 / 87.9	25.9 / 38.4 / 88.1	19.1 / 28.6 / 72.7	15 / 20.8 / 54.7	15 / 20.8 / 54.5	15 / 20.7 / 54.6	7.2 / 9.1 / 32.6	4.6 / 6.1 / 18.3	3.3 / 4.3 / 14.8
64.9 / 89.9 / 119.1	50.5 / 72.5 / 115.7	36.5 / 53.1 / 105.9	36.6 / 53.9 / 106.2	26.9 / 40.4 / 103.7	23.1 / 32 / 99.9	23.3 / 32 / 99.5	23.1 / 32 / 99.8	9.8 / 13.5 / 62.7	6.8 / 8.6 / 38.2	4.7 / 5.8 / 29.8
21.6 / 63.2 / 140.9	16.1 / 50.8 / 114.8	8.7 / 30.5 / 65.4	8.7 / 30.5 / 70.4	6.8 / 23.8 / 57.3	5 / 14.4 / 31.8	5 / 14.4 / 32.1	5.1 / 14.3 / 32.5	5/8/18	5/5/8.9	0
41.4 / 121.4 / 227.8	31.2 / 96.6 / 195.5	19.1 / 59.6 / 122.3	19.4 / 61 / 114.7	14.6 / 47.9 / 107.1	9 / 28.9 / 58.3	9 / 29.1 / 60.1	9 / 28.9 / 60.3	5.2 / 16.4 / 34.1	5/8.5/17.9	0
52/69/91	40/57/73	27/37/50	27/36/50	20/29/39	13/17/25	13/17/25	13/17/25	5/18/15	4/6/11	0
96 / 105 / 127	76 / 94 / 115	53 / 68 / 93	52 / 68 / 93	40 / 54 / 72	23 / 34 / 48	23 / 34 / 48	23 / 34 / 47	15 / 18 / 30	12 / 17 / 24	0
3798	2241	1526	1149	1094	1409	1409	1407	727	545	343
1359	995	787	646	565	121	121	121	110	57	41
2527	1198	1093	977	529	588	593	589	311	147	120
0.776316	0.869632	1.06193	1.15313	1.30316	2.7945	2.73342	2.72055	4.1182	4.6712	8.0311
0.769184	0.860033	1.04694	1.12825	1.26424	3.42393	3.38207	3.39407	4.73508	5.47472	8.76213



Reliance's 3G tablet

Reliance became the first in India to offer tablets on both 3G and CDMA with the launch of The Reliance 3G Tab

What's new in Linux Kernel 3.5

Read on to find out what the latest release of the Linux Kernel has in store for you
<http://dgit.in/P9bqfo>

SCALING

CrossFireX simply scales better than SLI, though both configurations end up taking a performance hit in some games as compared to a single GPU configuration. We do see a humungous bump in performance in OpenGL/OpenCL computation on AMD cards but NVIDIA ended up performing worse than a single GPU configuration. AMD clearly is better at computation for code that isn't specifically written for either architecture. When it comes to gaming, SLI is better than AMD in almost all of the benchmarks.



ASUS GTX 680 DC2T

FREEBIES

When a customer pays top money for a product he/she expects to get a good value for the money paid and that's quite obvious. What's puzzling is that a product that costs upwards of 35K doesn't come with a simple SLI/CrossFireX bridge/finger. The thing is that nearly all motherboards that can support SLI/CrossFireX do come with the SLI bridge and those who do end up buying multiple GPUs will always have these particular motherboards.



ASUS HD 7770 DC

As for games, there is absolutely no excuse for not including them. Last year, when we performed GPU benchmarks, we discovered about 5-6 games overall. This time we got a pack of 3 games with just one card. No other card had any games other than coupons for limited play. Given the Steam summer sale which was underway till the 22nd of July, it is quite evident that for a measly \$5 a diverse number of games are available which can be bundled along with a high end card. Being a PC gamer is getting more and more expensive by the day.

Winners ASUS GTX 680 DC2T

The GTX 680 with a mammoth 4GB memory narrowly raced past the HD 7970 DC2T to clinch the best performer award. This card which is part of the Direct CU2 series happens to be over-clocked than the stock GTX 680 by 131 MHz. The 7970, also from ASUS came second because it too is clocked 75 MHz higher than a stock card. Both cards come with improved coolers consisting of twin fans spread over 6 and 5 heat pipes for the 7970 and 680 respectively. Not to mention the solid design features which include protective metal back plates and twin fans.

Galaxy GT 640 1GB D3

The card with the best price-to-performance ratio turned out to be the 1GB GT 640 from



Galaxy GT 640 1GB D3

Galaxy. The 2GB version of the same card costing ₹600 more gave a negligible performance boost over the 1GB card, so naturally this became the best buy among the low-end line-up. The Galaxy GT 640 comes with a bigger fan and heat-sink combo and remains much cooler than the Zotac card.

ASUS 7770 DC

This card turned out to be a budget friendly card which was capable of playing even the most taxing games at playable FPS. For a price of ₹12,500 it is a decent card for the average joe. The MSI 7770 Power Edition missed out getting the best buy by a fraction of a hair mostly because of the features.

ASUS GTX 670 Direct CU2T

This card got the Best Buy in the high-end range as it sometimes equalled the GTX 680 in performance (due to its 157MHz overclock) while retailing at a cheaper price of ₹32,000. Only ₹2,000 higher than a stock 670. Also, the improved cooler design was a huge bonus.

Editor's Pick ZOTAC GTX 680

It's a stock GTX 680 priced as much as any other stock GTX 680. The difference is that this card comes with ample accessories and most importantly, 3 full games (Assassin's Creed 1, 2 and Revelations) and a 3-day coupon for TrackMania Canyon. The cooler being stock is nothing out of the ordinary but the card can easily be clocked higher and still remain within acceptable temperatures.

CONCLUSION

It seems at stock frequencies the Radeon 7970 and the NVIDIA 680 pretty much equal each other with one card being better



ASUS GTX 670 Direct CU2T

at a few games while the other for the rest. When it came to computation, the Radeon cards are ahead of the competition especially in multi-GPU configurations. The GTX



ZOTAC GTX 680

690 has no competition at the moment with the Radeon 7990 a few days away from launch (at the time of writing this article) being the only candidate. So we have benchmarked it but left it out of the scoring sheet till we receive the Radeon 7990. **d**



Temple Run on Android

The perfect fun to enjoy with your friends. The mega-addictive entertainment Temple Run is now on Android. <http://dgit.in/MfiEMh>

Web Developer

This extension-cum-toolbar for Chrome adds various tools useful for web development. <http://dgit.in/NIUk5y>

Linux Distro Comparison

Last Tux Standing

We pick six popular Linux distros to tell you how they compare against each other

Vaibhav Kaushal

readersletters@thinkdigit.com

There was a time when almost no one wanted to talk about why Linux is good. Then came Ubuntu and Android (with a Linux kernel), which brought Linux back in the game. Android changed the mobile and tablet arena and Ubuntu attracted a lot of desktop users. While Windows is still the mightiest of all desktop OSes, Linux is steadily growing in all aspects – number of users, user-friendliness, new tools from a large community of developers, easier administration and accessibility. Linux isn't 'only for geeks' anymore. Let us see why.

OPENSUSE 12.1

OpenSUSE is Novell's community project, the same as Fedora is a community project funded by RedHat. However, SLED (SUSE Linux Enterprise Desktop) is a Novell offering for Enterprise Desktop users and is one of the best in that arena. The advanced features built into OpenSUSE can be thus credited to SLED. OpenSUSE prefers KDE for its default desktop environment and thus comes with all the advanced features and customisation options offered by KDE. Its control centre and installer are both called YaST (Yet another Setup Tool). YaST is the most advanced GUI control centre you can get on Linux by

any means. Since YaST is a plugable system, when you install extra software such as Apache Web server, Samba server and FTP server, you would also get the GUI configuration tools right in the YaST control centre. It's a great option if you want to control fine bits and pieces of OpenSUSE's installation using GUI (advanced users can, at any time, go for the command line).

The detailed and advanced features of its installer are also credited to YaST. In practice, YaST installer is the most

advanced installer you can get for any OS – nothing offers so much control over the install procedure, with detailed help and descriptions of everything you want to do during installation – right from individual package selection, bootloader install, locale and default run-level settings to firewall configuration and beyond. All of this is certainly a pain for someone who has never tried Linux before; but OpenSUSE makes sure that if you do not understand all the details it

intimidates you with, the GUI sequential install procedure would not harm your current installation. The simple mantra here is – "If you do not understand something, read help; if you still do not understand it well enough, do not touch it".

OpenSUSE is released every 8-10 months and there are periodic updates in between. If you want to stay on the bleeding edge of latest software, go for the Tumbleweed repository. The one great thing about





Google Ideas

Google has unveiled "Google Ideas" project with the help of INFO to start the fight against drug cartels and other illicit networks. <http://dgit.in/OBLF7e>

Twitter for Nokia

Symbian, the most widely used mobile platform now offers their official twitter application on Nokia Series 40 <http://dgit.in/Oe5T5k>

HOW WE TESTED

Most users are not used to Linux and would like to have a dual boot with some version of Windows. Hence, we installed a fresh copy of Windows 7 for each distro on our test machine with the following specs: Intel Core 2 Duo E6320 processor with 3 GB 667 MHz RAM, a 320 GB HDD and a NVIDIA 9500GT all fitted on an MSI MS-7380 motherboard. We intentionally selected an older rig to ensure performance differences on the software level were distinctly visible. Also, since Linux is known to support older hardware well enough, this gave us an opportunity to see if there were any problems with that assumption – well there were none.

We then popped in the DVD of the distro and went through the installation under default settings (except for Slackware where we manually partitioned the drive) and observed how well the installer went along with the existing Windows installation. We also observed how complicated the installation process was and noted trouble areas. After installation, we first noticed the amount of memory and CPU usage and then explored the various software applications that came along and their features in detail.

Next in line were the various performance tests. We rebooted the machine to record the time taken

for bootup, hibernation and shutdown. We then tested how easy it was to install and remove software as we installed Phoronix test suite (and any other dependencies) and ran a complex system test. A graphics performance test using glxgears application was next and then came performance tests for the default browser, media player and compression software. In case the distro did not support media codecs, we installed VLC media player and tested it with an MKV file at a 1080p resolution. Compression software tests came next where we compressed a 5.4 GB folder, with an ample number of documents and media files, into a ZIP file and noted the time taken and size of the resultant file. In the end we tested how good the latest version of Firefox (13.0.1 at the time of writing) was against the default browser that came along with the distro – this also gives an overview of browser performance in the distro.

NOTE: glxgears was used for graphics performance test. It is not deemed as the ideal method for testing graphics performance for Linux, but is recommended in the absence of tools and again, it does show how well the graphics driver in use performs. Do note that we did not install any extra drivers.

OpenSUSE is its one-click install feature. It allows you to search for the required software on the OpenSUSE website and download a small file. When you double-click on this file, it launches the installer and lets you install software on your system (assuming you are connected to the internet). This is much easier for an average user who is used to the software install procedure on Windows machines. Again, the one-click install process allows you to subscribe to new repositories without the need for extra tools. OpenSUSE doesn't include popular media codecs, so you would have to install VLC media player over the internet.

Some users complain about the confusion between YaST and KDE's control center and it is indeed confusing in the beginning as same settings can be found at both places. The simple

way here is to not use the administrative parts of KDE's control center and rather use YaST for those. OpenSUSE deploys `systemd` for bootup and it's very fast (have a look at the table) compared to any other distro. We would say that if you want maximum control, the best performance, and a lot of additional options to play along with, at the expense of a comparatively complex installer, go for OpenSUSE!

On the downside, the steps for upgrading from one version of OpenSUSE to another higher version (without using the DVD) aren't really simple. Using a DVD to update to the next version is still the recommended way. Unlike Ubuntu, it

won't need extra space or slow the system down because of the leftovers after the upgrade process is complete. OpenSUSE stood out with its above par performance, fast boot-up times, advanced installer and a really powerful control center. Not to mention the default KDE interface was fast as well as friendly. With such features and performance, OpenSUSE comes



OpenSUSE 12.1

out as a clear winner, unambiguously bagging the Best Performer crown.

UBUNTU 12.04

Ubuntu has certainly been the constant winner of popularity contests held every now and then among Linux distros, and that's because it's very simple to use. Right from its installer to the software center or UI, everything is simple. However, if you aren't used to a vertical taskbar on the left edge of your screen, it will start irritating you in no time. The options and flexibility for an average user are not enough and at times, can get confusing. Hence, if you have been exposed to a Windows interface for long, Ubuntu is something which would not suit your taste for one simple reason – its interface. However, if you are a beginner who wants everything simple and non-confusing, go with Ubuntu, but remember that none of its default interfaces – either Unity or Gnome – look like Windows.

Its software center being simple can be a good or bad thing. Good, because it is easy – you search for software, select the entry, click Install and you're done. It will resolve dependencies, download them and install without bothering you for anything. Bad, because it would not show you the total download size or ongoing download speed. Again, you cannot cancel the download when it is happening and on slower connections, is certainly a disadvantage.

Nonetheless, it is still popular and brings in new innovations into the Linux arena. It is the simplicity which makes Ubuntu a must-try distro in the end. The best thing here: update from one version to another higher one without reinstalling anything. Although that will eat

Brand	Ubuntu	OpenSUSE	Linux Mint	Fedora	Slackware	Mageia
Version	12.04	12.1	13 (MATE)	17	13.37	2
Price (₹)	Free	Free	Free	Free	Free	Free
Overall (so 100)	58.38	74.06	63.41	52.68	55.97	53.89
Features (so 30)	17.43	25.75	18.96	19.54	23.02	17.99
Built-in Remote Desktop	Yes	Yes	No	Yes	Yes	Yes
OS-level encryption	Yes	Yes	Yes	Yes	Yes	No
Kernel version	3.2.1	3.1	3.2.0	3.3.4	2.6.37	3.3.6
Wi-Fi support	Yes	Yes	Yes	Yes	No	Yes
Bluetooth support	Yes	Yes	Yes	Yes	Yes	Yes
File manager	Nautilus	Dolphin	Nautilus	Nautilus	Dolphin	Nautilus
Office suite	Libre Office	Libre Office	Libre Office	No	KOffice	No
Media player	Rhythmbox (No popular formats support / asks for codec installation)	Amarok (No popular formats support / asks for codec installation)	VLC Media Player (Can play any video format without codec installation)	Rhythmbox (No popular formats supported / asks for codec installation)	Amarok / Dragon (Almost all popular formats supported)	Rhythmbox / Totem (MP3 supported. Other formats not supported) (Does ask for codecs)
Webcam support	Yes	Yes	Yes	Yes	No	Yes
Browser	Mozilla Firefox (version 11)	Mozilla Firefox (version 7)	Mozilla Firefox (version 12.0)	Mozilla Firefox (version 12.0)	Mozilla Firefox (Version 4)	Mozilla Firefox (Version 10)
Email client	Thunderbird	KMail	Thunderbird	Evolution	KMail	Evolution
PIM suite	None	Kontact	None	Evolution	Kontact	Evolution
Compression Software	Archive Manager (File Roller)	Ark	Archive Manager (File Roller)	Archive Manager (File Roller)	Ark	Archive Manager (File Roller)
Games available	Yes	Yes	No	Yes	Yes	No
Dedicated download managers	No	KGet	No	No	KGet	No
Torrent or P2P software included	Transmission	Ktorrent	Transmission	Transmission	Ktorrent	None
Image editor	Shotwell	Gwenview (basic editing)	GIMP	Shotwell	GIMP	GIMP / Shotwell
Photo album manager	Shotwell	Digikam	gThumb	Shotwell	No	Shotwell
Performance (so 40)	22.49	24.27	22.92	20.64	19.30	20.32
Bootup time (in secs)	30	20	33	40	57	36
Shutdown (in secs)	6	7	14	12	21	17
Hibernation time (in secs)	17	14	30	30	30	30
Hibernation wake-up time (in secs)	18	11	40	40	40	40
Graphics benchmark (FPS) 1280x800	372	751	442	253	117	117
Compression 5.4 GB files (secs)	1198	508	468	1267	506	1189
Size after compression .ZIP	4.9 GB	4.6 GB	4.7 GB	4.9 GB	4.6 GB	4.9 GB
4GB single file copy (secs)	146	151	135	139	138	146
4GB folder files copy (sec)	268	254	262	242	251	260
Installation time (minutes)	20	18	11	7	11	8
Idle CPU usage (percent)	4	7	5	7	4	3
Idle RAM usage (MB)	302	310	228	415	340	300
C-Ray test	542.3	561.7	527.95	291.92	232.48	596.12
RAMspeed (Integer test)	1718	1555.5	1567.77	1522.61	1548.28	1577.72
RAMspeed (Floating Point test)	1688.81	1537.85	1569.23	1524.77	1538.21	1572.13
PostMark test	137	147	140	157	594	116
Peacekeeper test - Default browser	992	970	766	968	766	1207
Peacekeeper test - Firefox 13.0.1	1193	1170	1175	1168	1168	1199
Kraken test - Default browser	5996.1	8424.1	5955.8	5859.1	8424.1	5705.3
Kraken test - Firefox 13.0.1	5805.9	5826.1	5745.3	5786.8	5826.1	5728.3
Design (so 30)	18.46	24.04	21.54	12.50	13.65	15.58

London Web Lab

The Web Lab is a set of five installations in the Science Museum at London. These "Labs" explore a particular feature in Chrome <http://digit.in/MNRmLg>



3D Home Theatre System

Sony recently launches 3D Blu-ray Home Theatre System with High Definition Audio and Video

up more space on your hard disk (and slow your system just a little bit), but then, this is one thing that is not easy in OpenSUSE and is only present on Mint among all we tested (Mint is based on Ubuntu).

LINUX MINT 13 (MATE)

Linux Mint is based on Ubuntu and Mint 13 is based on Ubuntu 12.04. It even uses Ubuntu's repositories for much of the software you get here. However, Mint is the messy fellow in the Linux fraternity when it comes to "which edition to download". You have MATE and Cinnamon editions with and without Media codecs as well as KDE and XFCE to choose from. MATE is a Gnome-2 fork and is great for an average user, but does not have all the fancy effects and is good for lower-end machines (see its memory usage in table). Cinnamon is a Gnome-3 fork and is great as well. We used the MATE edition with media codecs and this is going to be the best thing for you if you want to get all popular media codecs, but do not have at least a basic broadband connection! Linux Mint 13 MATE edition comes with Gnome under the hood and does not offer the customisability offered by KDE. Also the DVD

does not contain any extra software you would love to have.

Much of Mint is Ubuntu except the UI. You get Synaptic Package Manager which offers better control over software install procedure and a menu that looks and behaves much like Windows' Start menu. Searching for apps in Mint is easier than it is in Ubuntu. The menu search even offers you to search for files with an additional mouse click. Altogether, Linux Mint is Ubuntu with a more intuitive interface. Mint is certainly the herb that would cure your resistance towards Linux caused by the irritant known as "bad multimedia support". Go for it if you want the perfect blend of simplicity, ease of use and power. Oh, and since it is based on Ubuntu, you can actually update from one version to another (with all the pros and cons of the process). With all good things from the most popular distro around and improving upon the bad parts of it, Linux Mint is deservedly the Editor's Pick!

FEDORA 17

Fedora is a test bed for RHEL and is a community project by RedHat. The installer is fine enough for an average user.

The release cycle is six months, repositories are always updated and it is



Fedora 17

actually good and fast enough. Sounds nice? Now for the bad part. You are not going to like the install process. The installer is more oriented towards enterprise setups. If you're using the default settings, you will first notice that auto detecting the Windows installation and offering a partition resize is not default. Next, if you did not customise the partition scheme, you will end up with LVM volumes and that is more enterprise oriented than it is home-user oriented for the simple reason that if you encounter problems, you will have a lot less help than with the regular partitions based setup.

It comes with software you would get on any other distro and probably the best thing is that the updates are smaller in size, thanks to "delta RPMs" in use (which is also the case with OpenSUSE, fortunately). Its good for users who are already experienced with Linux enough to solve basic problems if they get some. The recommended default DE is Gnome 3 and that is not friendly (remember that we are talking from the perspective of a seasoned Windows user who is not used to other environments).

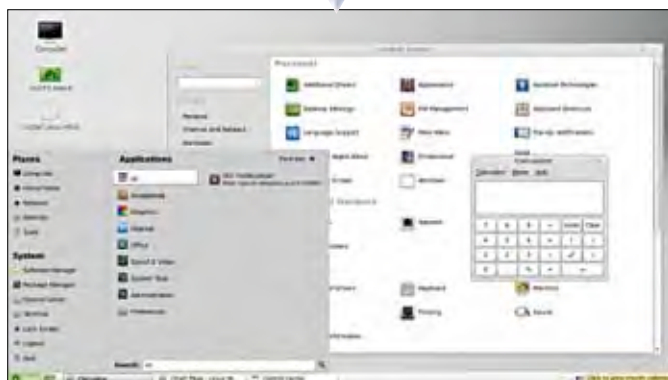
MAGEIA 2

Mageia is forked from Mandriva Linux and has been rising in the

popularity charts. For one thing – if an OS installation intimidates you, Mageia offers you a lot of advice and help while you install it alongside Windows. The experience is not too bad either. You have an easy-to-use but powerful control center, a good enough software installer and well organised controls for hardware and other settings. The bad side is – the software package manager, which does not offer you much control over the install process once it is started. It would go on downloading even if you closed the install window (and that's real bad). Gnome is the default environment. So you either get the DVD for it (like you should for Fedora) if you wanted KDE or be ready to experiment with a new UI (if you haven't experienced Gnome 3 till now). Most other features are the same as that of Fedora, except the fact that it will play MP3s for you (not any other media formats though). The good thing here is the helpful behaviour of its installer.

SLACKWARE 13.37

If you think that wild beasts with sharp teeth or red hot knives with sharp edges are great toys to play with, you will like this one. The installer is not GUI based to begin with and you have to format and-



Linux Mint 13 (MATE)

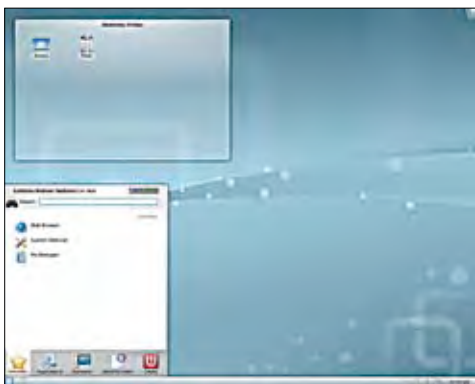


New Google+ app for iOS

With the help of newly redesigned Google+ app for iOS devices, you can easily stay connected and share life as it happens with Google+ for iPhone and iPad. <http://dgit.in/NFxFPOF>

prepare partitions yourself (yeah, on the command line). Discovering Windows partitions is your job. After installation, you have just one user - root and you will have to login via the command line. The GUI must be invoked separately. To create new user accounts and make sure they can use the GUI is your responsibility, so is to set up the network, Wi-Fi, Bluetooth and your sound card.

It has a package manager which does not resolve dependencies - so in almost all cases, you have to compile the stuff you want. There is no administrative control center and the version of KDE is old (4.5.5). Mantra of simplicity is what it fol-



Slackware 13.37


lows (well, it is simple from the perspective of a hardcore Linux freak, not from the average guy's). If you want something, download the source, compile it yourself and clean the mess if there was any. Nothing is automated here. This one is purely for the crazy ones.

THE DESKTOP ENVIRONMENTS

If you notice in the table, the performance for creating a ZIP file was considerably higher with Slackware and OpenSUSE. If you failed to notice, they both use KDE as their Desktop environments. If you have not witnessed any OS under work, except Windows, we would like to say that an OS can have any look the designers wanted it to have. As such, Apple's Mac operating system differs considerably from the Windows UI. Similarly Linux UI are different too. In case of Linux however, you have multiple interfaces to choose from (more commonly called as desktop

environments) like KDE, Gnome, XFCE, LXDE etc. Of these, Gnome and KDE are the most popular ones. Each desktop environment looks and behaves different from the others and comes with different sets of software. For example, KDE looks a lot like Windows and Gnome looks like Mac. Others have their own looks. KDE has KMail as default email program and Ark as the compression software, Gnome prefers Evolution and Archive Manager (also called as 'File roller') in the same order. A large part of your experience depends on what UI you choose. For example, KDE would give you a lot more options than Gnome 3 and would look familiar to the Windows UI but would consume a little extra RAM compared to Gnome 3 and work about 5% slower on the interface. If you are using KDE or Gnome 3, we would recommend you have more than 512 MB of RAM otherwise go for Gnome 2 or Linux Mint with MATE.

OTHER DISTROS TO LOOK FOR

Six distros are not the end of the Linux world. There are a lot of other interesting distros which we could not cover due to time and space constraints. Among the other interesting ones are Debian, Arch, Gentoo, Sabayon, CentOS, PCLinuxOS, Puppy Linux, Oracle Linux, Chakra, Knoppix, Vector etc. Arch and Gentoo among all these would be of particular interest to an enthusiast as they are rolling releases - as soon as an updated version of software is available, you can download it and install it. If you are nuts over performance, go for Gentoo - it will always download packages as source and compile it on your machine thus making sure that all software run as fast as possible - and with that, we just mentioned that if you compile a package from source on your own system, it will give you a higher performance because of the compiler making sure that your hardware features are well utilised! Remember though that Arch and Gentoo do not come on installable media (not easy by any means at least) and the install process is more complicated than you can anticipate with Slackware. 



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for Indian Skin Tone




C12.0

- 1.3M pixels (Interpolated 12M pixels still image & 2M pixels video resolution)
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- 6 LEDs for night vision, with brightness controller
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- Snapshot button for still image capture
- 4X Digital zoom and Auto Face Tracking Function



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Ahmedabad - 079-2746 1049, **Bangalore** - 080-4124 3646/ 9609,
Bhubaneswar - 0674- 329 7372, **Cochin** - 0484- 220 7141,
Chennai - 044- 4216 8561, **Dehradun** - 0135- 324 4481,
Guwahati - 94357 31462, **Goa** - 80070 35766, **Hubli** - 0836- 2272801 / 802,
Haryana / Himachal - 0124- 225 0478, **Indore** - 0731- 404 2509,
Jaipur - 0141- 313 0340, **Kolkata** - 8017518545,
New Delhi - 8860080580, **Lucknow** - 0522- 400 5840,
Ludhiana - 09316065255, **Nagpur** - 0712-302 3811,
Nashik - 98605 39199, **Pune** - 093723 37752, **Patna** - 0612- 326 0947,
Raipur - 0771- 329 3674, **Ranchi** - 0651- 324 4199,
Secunderabad - 040- 2789 4847.



Google Chrome for iOS

After a long time wait, Google finally released the Chrome browser for iOS devices at Google's I/O developer conference. <http://dgit.in/N1FAOW>



Ushering in iPad Mini

The 7-8 inch tablet is expected to debut by the end of the year, with rumors of collaboration with LG Display. <http://dgit.in/M6ioy8>

Nikon D4

Nikon's latest full-frame beast



Specifications

Sensor: 16.2MP CMOS;
Image Processor: EXPEED 3;
ISO Range: 100 - 12800;
Burst mode: 10 fps; **Max Video Resolution:** 1920x1080 (30,25,24 fps)

Contact

Nikon India Private Limited
Phone: 0124-4688500
Email: nindsales@nikon.co.in
Tech Support:
 0124 4688500 (North)
 080 42450500 (South)
 033 40218500 (East)
 022 40925555 (West)
Price: ₹3,24,995

8.0/10

Features 8.0
 Performance 8.5
 Build Quality 9.0
 Value for Money 7.0

It's big, it's fast, and if you fling it at someone's face, chances are they'd break a bone or two while the camera wouldn't show any sign of damage. Yes, we are talking about the Nikon D4, the new beast that takes the stage after the D3 and the D3s have had their fair share of the lime light. The camera packs in quite a bit of new tech along with a 16 megapixel full-frame sensor, a redesigned 51-point focus system and a burst mode of 10 fps.

The Nikon D4 is built of solid magnesium alloy along with an extensive network of weather seals, making this beast an ideal buy for photographers who are constantly roughing it out (wildlife, sports etc). One thing to keep in mind though is that the "weather seal" is only complete when a weather sealed lens is attached to the camera, as these have a rubber gasket at the lens mounting end which seals the gap between the lens and the

mount, so as to prevent any water or dust from accidentally slipping in and ruining the sensor.

Along with the host of buttons that riddle the left and underside of the 3.2" LCD screen, there is also a multi-directional joystick that can be assigned to do a slew of things, but we chose to have it control out focus points. A similar stick can be found on the grip, to ease shooting in portrait mode.

In our use of the Nikon D4, we found that most of the settings require two-hand-one-eye use. What that means is that changing certain settings requires the use of both hands; one to press the corresponding button and the other to spin the dial that would change the value. The positioning of such combination often required us to remove the camera from our eyes, which we sometimes found to be an inconvenience.

Nikon boasts of the D4's novel focusing system, which throws a whopping 51 points that not only works in lower light but also works well with smaller apertures in those same conditions. We tossed the D4 around in some of the worst lighting imaginable – club lighting. It had no issues locking focus in the extreme low light. Focus performance was no different when the lights went on a frenzy, comparable to a little child experiencing a sugar rush. We even went ahead and shot a bunch of hooligans playing a game of basketball, just to see how good the AF was at keeping track of the man with the ball. 9 out of 10 shots were keepers (and we're shooting in low light here mind you!)

Accompanying the AF chip is the 91,000 pixel sensor dedicated to the task of making sure your photos are as accurately metered and white balanced as possible. This is why despite the crazy, constantly changing lights, our exposure values were within the range of what we consider "good exposure" (a maximum adjustment of 1/3 of a stop) along with the focus being spot on. Following in the footsteps of the stellar AF and metering system is the heart of the D4, a 16 megapixel full frame sensor that captures images in absolutely amazing detail. Even as the ISO numbers got bumped up from 800 to 6400 (even 8000 at one point), detail retention was stellar, while the noise levels remained extremely low.

The camera shoots fast and it shoots well. It even, for the first time in its class, offers proper full HD video recording. Once again at the club, we shot some footage and noticed our ISO jumping to 5000. When viewing that footage on a 32-inch LCD TV, we failed to see any noise. Let that be a testament of the power of the D4.

Well, all that power and performance comes at a cost and the Nikon D4 is pegged at a price of ₹3,24,995. Peanuts if you're part of that one per cent of the elite and just a fond dream for the rest of us.

Swapnil Mathur

CORRIGENDUM

We are repeating this review from last month, since we erroneously published ratings for some other product. Our sincere apologies to our readers for the confusion.



New Hangout Apps

Google introduced a new set of featured apps for Google+ Hangouts at Google's I/O developer conference. <http://digit.in/N1W4Xy>



Making of Android 4.1 statue

Curious about Google's Android 4.1 Jelly Bean statue? Check the detailed coverage at. <http://digit.in/Mpj1XN>

Bazaar

Nokia 808 PureView

A sign of the future, with megapixels of goodness

For all that it brings to the table, the 808 will not win any points for being sleek. At 13.9 mm thickness, it does have a big footprint. The phone's thickness varies from point to point though. To understand this, you need to flip the phone over and see how the camera sensor clearly sits higher than the rest of the battery cover. We do understand that it takes space to fit in a monster 41 MP sensor, Carl Zeiss optics and Xenon flash though.

Overall, it has excellent build quality. Once you move past the "it is thick" routine, you will appreciate how well put together this phone is. Typically solid and durable Nokia build quality. Weirdly, the 808's design feels very good, despite the slightly bulky dimensions.

When the Nokia dropped the "Pureview 808-41 MP shooter," the news took a long time to sink in! The camera UI has been designed to take full advantage of the ridiculously powerful sensor in the camera. The first thing to note is that you can either shoot in full resolution mode, which records images at 38 megapixels (if you select 4:3 aspect ratio, but 36 megapixels if you're shooting 16:9). Switching to PureView mode allows you to zoom to various degrees, depending on whether you choose to shoot in 8, 5 or 3

megapixels. Regardless of what mode you are in, you will have the option to dial in exposure compensation (up to 3 stops over and under), along with setting custom white balance, choosing a focus mode (infinity, closeup, portrait or automatic).

We shot using the custom mode, with the sensor set to record images in full resolution and there is no way to sum up the kinds of shock we experienced. Not only does the PureView capture images with great speed and clarity, but also looking at 100 per cent crops does indeed reveal the true power of this sensor. The level of detail retained is astounding. We did a small shootout between the PureView, the iPhone 4S and the Sony HX20V. Besides retaining a great amount of detail, the PureView also stumped us with its ability to essentially flip the mute switch on the noise (excuse the pun!). We not only observed a total lack of noise in our studio shots, but also noticed that the camera has little to no JPG artifact.

Nobody can say that the 808 doesn't have the grunt – a 1.3 GHz ARM 11 processor. With just 512 MB of RAM though, it will have issues with multiple apps open, but up to 3-4 apps are handled without system performance taking a visible hit. There is no shortage of

storage space either, with 16 GB of internal memory.

The 4-inch AMOLED display has a surprisingly low resolution of 640 x 360 pixels. We are quite perplexed as to why Nokia would carry forward the same resolution as seen on



the likes of the Nokia N8 and the Nokia X7. The AMOLED display does fight back for lost ground though – good colour reproduction and crispness. Nokia's ClearBlack technology does add a bit to the good work AMOLED was already doing.

Call quality is absolutely brilliant on the phone. In the same region, the 808 has considerably more signal strength shown than the HTC One X and the Samsung Galaxy SIII.

Battery life is extremely good on the 808. We replicated a primary phone usage pattern and this one lasted 2 days without even as much as a minor crib.

The Nokia PureView 808 is possibly the best camera phone ever made. Any feature above and beyond the camera is basically a bonus. However, if this were an indication of things to come, the PureView with Windows Phone OS is what we are waiting for.

Vishal Matbur and
Swapnil Matbur

Specifications

Platform: Symbian Belle FP1;
Processor: ARM11 1.3 GHz,
512MB RAM; **Display:** 4-inch
AMOLED, 640 x 360 pixels;
Storage: 16GB + microSD slot;
Camera: 41MP, 1080p HD
videos; **Battery:** 1400 mAh

Contact

Nokia India
Phone: (City code) 30303838
Email: <http://www.nokia.com/in-en/support/contactus/>
Price: ₹33,899



6.5
10

Features 7.0
Performance..... 7.0
Build Quality 7.5
Value for Money 5.5

Offline maps for Android

Offline Maps for Android devices allows users to access Google Maps without a data connection.
<http://dgit.in/LVnkaz>

**Incredible Hulks on Twitter**

Remember that smashing Incredible Hulk? He is 7-times more powerful on Twitter!
<http://dgit.in/LfTCMm>

Zync Z999 Plus

Budget Tablet 2.0

Straight out of the box, the device feels a little superior to its predecessor. Its build quality overall feels premium with a matte finish to the rear giving it a better grip. The front of the device however still maintains a glossy finish making it a finger-print magnet.

A nice addition to Zync Z999 Plus is a SIM card slot. You can now use the device to make calls as well as access 3G on the go. The rear of the device also has a 2 MP camera. The front houses the 0.3 MP camera for video chat.

Under the hood, it has a single-core 1.5 GHz processor but the RAM is still the same at 512 MB, which means that



multitasking will be met with a bit of lag. A nice addition to the hardware is that the device now supports Bluetooth. It still sports a 7-inch display and the resolution is a bit disappointing at 480x800. The device will last up to 4.5 hours with continuous

video playback thanks to the 4200mAh battery. The internal storage is 8 GB, expandable up to 32 GB via a microSD card.

One of the best features of the device has to be its keyboard, as it's a pleasure to type on.

Playing games on the device was fun. *Angry Birds Space* ran without any hiccups. Browsing the Internet on the device was a mixed experience. The websites loaded quickly enough but some rendering took longer than usual.

If you are in the market to buy a tablet in the price range of ₹10,000 to ₹15,000, you can definitely consider this device.

Sameer Mitha

Specifications

Platform: Android 4.0.3;
Processor: 1.5 GHz Single Core; **RAM:** 512 MB; **Display:** 7-inch touchscreen (480 x 800 pixels); **Storage:** 8 GB internal, expandable up to 32 GB via MicroSD; **Camera:** 2 MP rear and 0.3 MP front; **Battery:** 4200mAh

Contact

Zync

Phone: +91 8586923340

Email: support@zync.in

Price: ₹11,990

6.0
10

Features6.0
 Performance.....6.0
 Build Quality6.5
 Value for Money7.5

Specifications

Processor: Intel Core i5-2467M @ 1.6GHz; **RAM:** 4GB; **Display:** 15.6-inch, 1366 x 768 pixel; **Graphics:** Nvidia GeForce GT 640M with 1GB RAM and Intel HD 3000; **Storage:** 500GB HDD; **Optical Drive:** Yes; **Connectivity:** 2 USB 2.0, 1 USB 3.0, HDMI, SD card slot, Ethernet and Wi-Fi

Contact

Acer India

Phone: 0120-3807200

Email: all_easycare@acer.co.in

Price: ₹51,705

7.5
10

Features7.5
 Performance.....8.0
 Build quality6.5
 Value for money7.0

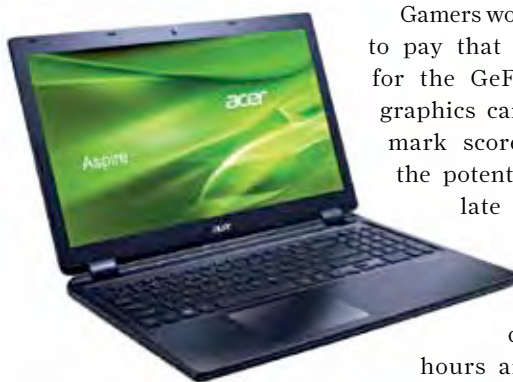
Acer Aspire Timeline Ultra M3

This can be an ultrabook and a gaming laptop!

The polycarbonate used on the Aspire M3 is not of the highest quality, visually speaking, but offers a solid build quality. The only niggle is the laptop's lid has a lot of flex in it. The machine's display hinge isn't very solid either.

The Intel Core i5-2467M that powers the Aspire V5 has been carried forward to the Aspire Timeline Ultra M3. Intel's HD 3000 teams up with the nVidia GeForce GT640M (1GB) for graphics.

Display crispness is in a generous dose, but there does tend to be some noise around the text at times. We're not sure what causes this though as it seems to be an intermittent issue.



Essentially, the Aspire Timeline Ultra M3 is a bumped up version of the Aspire V5, with the only real difference being the graphics. The M3 scores better in most benchmarks and the difference is enough to ensure that the M3 feels zipper in standard usage conditions.

Gamers would be delighted to pay that little bit more for the GeForce GT640M graphics card. The benchmark scores clarify that the potential does translate into utilizable performance.

The battery life clocked in at three hours and 18 minutes in the battery tests, at full brightness and in the *High Performance* power mode. In real life performance, you should ideally get about four and half hours of usage on a single charge. The laptop's pricing is pretty good for its performance.

Vishal Mathur



Nexus 7 launched....

Nexus 7 launched at Google's I/O developer conference for \$199. You can order it directly from Google Play. <http://dgit.in/LIPSaU>



...aaand it's gone

The Nexus 7 disappeared from the google play store just the first weekend after it was launched. <http://dgit.in/NSOUVy>

Bazaar

Cooler Master Notepal X3

A good looking notebook cooler with decent performance

For a laptop cooling pad, the Cooler Master Notepal X3 is nice and portable. Its design and looks are quite snazzy, and the additional glowing LED lights surrounding the X3's fan (below the top grille) lends character to the notebook cooler. Compared to the Notepal U stand reviewed a few months earlier (<http://dgit.in/NotepalU>), the looks of the Notepal X3 are more appealing – however, in terms of functional design, the Notepal U is much better.

The Notepal X3 is quite light, weighs under 1 kg and is easy to tuck in the bag and carry around. It connects to a laptop via USB, and the stand compensates the loss of the



laptop's USB port by offering an in-built one. Below the large grilled surface top sits a big 200mm fan which runs very quiet with almost no perceptible noise. The Notepal X3 claims to accommodate up to 17-inch laptops and it does so quite well. It has extended rubber stands placed on its bottom panel for customized height adjustment.

On our test laptop, without turning the X3 on, we recorded

CPU temps at 49 deg C and 73 deg C at idle and full load, respectively.

After turning the X3 on (and its fan on full blast), the idle and full load temps dropped down to 44 deg C and 66 deg C, respectively. Hence, the X3 helped bring temps down between 5 to 7 deg C.

This performance is marginally lower than the Notepal U stand. But the Notepal X3 sells at a lower price which is 20 percent cheaper. It's a good buy, looks fancy, but if you can shell out a bit extra, we recommend buying the Notepal U stand.

Jayesh Shinde

Specifications

Color: Black; **Material:** Aluminium, plastics, rubber; **Weight:** 0.9 kg; **Connection:** 1 x USB 2.0, miniUSB; **Power:** 5V DC, 0.28 A; **Warranty:** 1 year

Contact

Cooler Master India
Website: www.coolermaster.in
Email: sanket_naik@coolermaster.com
Price: ₹2,000



Features	6.0
Performance.....	6.5
Build quality	5.5
Value for money	7.0

Specifications

Processor: Intel Core i7-3610QM @ 2.3GHz (Turbo mode to 3.3GHz); **RAM:** 8GB; **Graphics:** ATI Radeon 7670M (2GB); **Display:** 15.6-inches, 1366 x 768 pixels; **Storage:** 750GB hard drive; **Ports:** 1 USB 2.0 + 2 USB 3.0, HDMI out, Ethernet

Contact

Toshiba India
Phone: 18002008674
Email: laptopcare@toshiba-india.com
Price: ₹56,000



Features	8.0
Performance.....	8.0
Build Quality	6.5
Value for Money	7.0

Toshiba Satellite L850

Very powerful laptop, or a desktop replacement

Straight out of the box, this looks like a traditional laptop, with a no-frills design. The lid has a brushed metal finish, which is a thankful reprieve from the hateful glossy finish of some rivals.

The build quality does justify the price.

The laptop's tiled keyboard is well spaced out, helped by the margins offered by the 15.6-inch display no doubt. The touchpad is located towards the left. Call us old-fashioned, but we like it to be centre aligned, as that is just how the hand is naturally positioned on the keypad.

It houses a quad-core Intel Core i7-3610QM processor



clocking at 2.3 GHz, with a Turbo Boost mode taking it to 3.3 GHz and 8 GB of RAM. Thanks to this power package, the L850 scores very impressively in all benchmark tests. The Radeon 7670 should satisfy the gamer amongst us, to a certain extent. It does score

better than the GeForce GT630M that comes in the rival Acer Aspire V3.

The 15.6-inch display on the Satellite L850 is absolutely brilliant. The brightness levels are quite high, and tend to act as an antidote to the slightly reflective nature of the laptop's display.

No matter what, the battery will not last more than 90 minutes under full load. Don't expect this to last more than 2.5 hours under standard usage conditions either.

The Toshiba L850 is one solid desktop replacement, and is a viable alternative to the Aspire V3, in a slightly higher price bracket.

Vishal Mathur

Runcore's new SSD

Slow but small, it is more reliable and tolerant with a self-destruct feature, targeted at embedded systems. <http://dgit.in/01Ip1V>

**Updated YouTube APIs**

Google released new APIs for YouTube along with updated data and analytics at Google's I/O developer conference. <http://dgit.in/Lldiys>

LG Optimus 3D Max

3D aside, decidedly mid-range performance

The 4.3-inch display has a lot going for it – especially with its bright and accurate colours. The only disappointment is that the black levels aren't very deep.

Look closely from side-on, and you will notice that the LCD does stick out quite a bit, and that becomes more profound with the Gorilla Glass 2 treatment. When swiping across the screen, you will hit a thin border, which is the plastic border that frames the glass.

Just like the previous-gen 3D phones from LG and HTC, the Optimus 3D Max suffers from largely the same issues,



including our biggest complaint, a very limited “sweet spot” for viewing in 3D.

The 3D Converter app is a very neat feature – it lists all the compatible apps, and will convert them to 3D. The video player has the option of bumping videos to 3D on the fly. Quality is acceptable, but will suffer if you are playing low-res videos.

The performance tests indicated a mid-range smartphone. In most of our tests, this one is neck and neck with the Motorola Atrix 2 (₹23,000). The 1.2 GHz dual-core processor with 1GB of RAM does not struggle even when rendering a 1080p video in 3D, very nice. You will see a bit of a lag when in 3D mode, mostly because the refresh rate of the screen is just not sufficient for movies.

It has a decent enough battery life, and will last a day and a half under a medium-load usage scenario. Pricing though is a bit on the higher side.

Visbal Mathur

Specifications

Platform: Android 2.3;
Processor: Cortex A9 dual core 1.2 GHz, 1 GB RAM, PowerVR SGX540 graphics;
Display: 4.3-inch 3D LCD with Gorilla Glass 2, 480 x 800 pixels; **Storage:** 8 GB, microSD slot; **Camera:** 5MP (3MP IN 3D mode), 1080p for video.

Contact

LG India
Phone: 18001809999
Email: <http://www.lg.com/in/support/complaint-registration/index.jsp>
Price: ₹30,500

6.0
10

Features 7.5
Performance 6.5
Build Quality 6.5
Value for Money 5.5

Fujifilm X-Pro1

A delectable blend of the vintage and modern

Specifications

Sensor: 16 Megapixels
ISO Range: 200-6400 (expandable to 25,600)
Burst Mode: 6fps
Video Resolution: 1920x1080 (24 fps)

Contact

Fujifilm India
Phone: +91-124-4325500
Email: contact@fujifilmindia.com
Price: ₹1,04,999

7.0
10

Features 6.0
Performance 8.0
Build quality 6.0
Value for money 8.0

Fuji's innovation, packaged into a camera that evokes strong emotional responses, costs a whopping ₹1,04,999, so the obvious question is, is it worth it?

The X-Pro1 looks just like an old-school Rangefinder complete with the offset viewfinder, the textured leathery layer and a host of dials to aid manual shooting. The camera feels solid thanks to its magnesium alloy construction and is great to hold. If it wasn't for the glorious 3-inch 1.2 million-dot LCD on the back, there would be no way to distinguish this from an analog rangefinder.

The X-Pro1 is built on Fuji's revolutionary 16 meg-



apixel APS-C X-trans sensor. The sensor places three colors per pixel row, in no particular order, which does away with the moire, and hence the need for an anti-aliasing filter.

The result, according to Fuji, is sharper images and we can definitely vouch for that fact. We're yet to see images shot at f/2.0 that look as sharp

as they do coming out of the X-Pro1. We found the colors to be very natural indeed. The white balance was warm for all indoor shots, but outdoors it seemed to keep the color tones intact.

The X-Pro1's focus is of an average performance in terms of speed, but effective even in low light conditions thanks to the bright AF illuminator situated on its front. The camera's fast aperture primes with their incredible sharp images are definitely bound to attract the niche photographer.

Swapnil Mathur

Android 4.1 released

Google unveiled the latest release of Android at Google's I/O developer conference with buttery graphics and silky transactions. <http://dgit.in/MFYnNo>



Bone jarring- redefined

This new MP3 player fits in your mouth and plays music through bone conduction via your teeth. <http://dgit.in/N7avuN>

Bazaar

Sony Bravia 40HX750 3D

One of the better performing LED TVs we have tested

The HX750 series is a couple of notches below the HX925 series that we had tested recently. However, this is not apparent from either the build quality or the feature set, for the most part.

Switch it on, and even before you can say Bravia, the completely redone menu introduced on the HX925 greets you. Earlier, you could head straight to settings like Picture and Sound by just pressing the Menu button, but there is now another visually appealing layer before that. The idea is to integrate the social networking as well as the web streaming services. Integrated Wi-Fi is a huge bonus and is appreciated.



Picture quality is excellent. There is distinct crispness, and the blacks seem better than with most TVs tested till date. This was confirmed by the Spyder 3 Elite benchmark test that threw up a contrast ratio of 1129:1, which is excellent. However, as with most televisions upwards of 32-inches, SD content looks quite noisy and

sharpness tends to be sacrificed to reduce noise. This results in dull visuals, and turning up the sharpness barely helps. Both Noise Reduction options make a visible difference on this TV, and we would recommend dialing these down. 3D content on this TV is limited to 720p, while the HX850 – the next model in the series, offers Full HD 3D.

Among 40-inch televisions, this is slightly on the pricier side. However, if you can stretch your budget, do consider this as an option.

Visbal Mathur

Specifications

TV Type: Dynamic Edge LED with Frame Dimming; **Size:** 40-inches with 3D; **Engine:** X-Reality; **MotionFlow:** XR 400; **Connectivity:** 4 HDMI, 2 USB, Composite Component, Ethernet and Wi-Fi

Contact

Sony India

Phone: 18001037799

Email: <https://www.sony.co.in/section/contactus>

Price: ₹83,900

6.5/10

Features	6.5
Performance.....	7.0
Build quality	7.0
Value for money	6.0

Specifications

TV Type: IPS LED; **Size:** 47-inches with 3D; **Engine:**

Smart Viera Engine Pro;

MotionFlow: 1600Hz backlighting, 24p mode;

Connectivity: 4 HDMI, 3 USB, Composite Component, Ethernet and Wi-Fi

Contact

Panasonic India

Phone: 18004251860

Email:

helpline@in.panasonic.com

Price: ₹1,33,900

6.0/10

Features	7.0
Performance.....	6.5
Build Quality	7.5
Value for Money	6.0

Panasonic Viera TH-L47DT50K

Walking the path of their Plasma range's competence

Panasonic is well known for making excellent Plasma televisions. The 47-inch 3D LED panel that we received has some really interesting features. First up is the 2D to 3D up-conversion, and this one is by far the cleanest we have seen. The second is the team of eight speakers that attempt to provide surround sound. We would still recommend a home theater though. The 1,600Hz backlight scanning does seem to be doing its job ie. visibly minimizing the blurred edges on fast-moving objects.

The 47-inch IPS LED panel has a very slim bezel, leading to an almost edge-to-edge design. The menu and interface are



very basic, but functional nevertheless. The picture settings do miss out on some important settings. For example, there are no detailed settings for black levels, multiple noise reduction presets, etc.

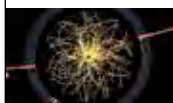
With HD content, colour reproduction is unbelievably good. 3D depth is quite good

too, but we have never really been fans of active 3D glasses. SD content is as it always is on most large-screen TVs, noisy and lacking in detail. Black levels aren't very impressive and the dearth of

tweaks doesn't help.

Our benchmark test threw up a disappointing 446:1 contrast ratio. What this TV does do well is handle fast motion scenes, the inadequate black levels though, mean that you will lose out on a lot of detail in your movies.

Visbal Mathur



Higgs boson for dummies

Don't get the science behind the Higgs Boson? Here's a video that clarifies all the fuzz surrounding the Higgs Boson. <http://dgit.in/M6WydQ>

LG Optimus 4X HD in India

LG Electronics, a worldwide technology manufacturer has launched their LG Optimus 4X HD smartphone in India. Watch its review. <http://dgit.in/OLPP8P>

Sony Alpha SLT-A65

Feature-rich mid-range burst-master

In terms of looks it comes across as a younger sibling to the Alpha A77. The black body is all plastic with a neat rubberised finger grip in the front. There is an ergonomic depression at the finger grip, which fits the hand like a glove, on the camera body.

Dynamic Range (DR) and Auto HDR functions offer various levels of shooting, thereby helping you better balance out the light in high contrast regions.

The burst shooting mode offers a whopping 10 fps which is the highest burst rate seen among this class of cameras. You might have to wait for quite a while for the processor to finish writing the images on the card. Base ISO performance

was quite good with clean images. At ISO 3200 you notice the noise only at 100 per cent crops and image quality degrades from ISO 64. Sharpness at the edges is a bit of a concern.

Image quality is very good. AF is quick but nowhere close to that found on the Olympus EP3. It does not hunt for focus unless you are in a very dimly lit scenario.

The video quality offered by the Sony Alpha A65 is among the best in its class. Thankfully, Sony offers the option of recording the video in the popular MP4 format as opposed to just the MTS format, but the disadvantage is



that with MTS you get a lot more options such as 25p/50p/50i whereas with MP4, you only get two: 1440x1080 (12M) and VGA (3M).

At ₹59,990 it is priced quite wonderfully for the feature set and performance on offer. But we would recommend investing in a better lens, as the stock lens does not do the camera justice.

Nimish Sawant

Specifications

Sensor: 24.3MP APS-C Exmor CMOS; **Burst Rate:** 10 FPS; **ISO Range:** 100 – 16000; **Shutter Speed:** 1/4000 to 30 secs; **GPS Chip:** Yes

Contact

Sony India
Phone: 1800-103-7799
Email: sonyindia.care@ap.sony.com
Price: ₹59,990

7.0
10

Features 8.0
Performance 7.0
Build Quality 6.5
Value for Money 7.0

Creative ZiiSound T6

Impressive 2.1 speaker-set marred by high price

Specifications

Configuration: 2.1;

Interface: RCA, USB and Bluetooth; **Subwoofer dimensions (LxWxH in mm):** 320x240x220; **Supported**

Bluetooth profiles: A2DP, AVRCP

Contact

Creative

Email: indiagetcreativek@ctl.creative.com

Website: www.in.creative.com

Price: ₹27,000

Creative ZiiSound T6 is a 2.1 channel speaker set which occupies considerable real estate thanks to its sub-woofer which houses three drivers. The satellites are vertical in nature and are divided into two compartments each housing a driver. The upper section of the satellite can be swivelled by 45 degrees in either direction. It comes bundled with a remote control and an audio controller pad. The controller has a volume adjustment dial, a power button, a bluetooth sync button and a 3.5mm headphone jack. Also bundled are two bluetooth transmitters namely BT-01 for USB ports on your system and BT-D5 for iOS devices. On the rear side



of the subwoofer you have the bass control dial along with all the connectivity ports. It offers bluetooth, USB and standard analogue connectivity options.

The speakers can get very loud but manage to maintain their clarity even at maximum volume. On bass-heavy tracks such as *Massive Attack's Angel*, the T6 was not able to handle the low frequencies well and

distortion was noticeable. The mids are the strong point of the T6. The apt-X audio codec ensured that the audio being streamed via bluetooth was crisp. In the USB mode, you get the option to configure speakers for a virtual 5.1 effect, which wasn't that defined while we were watching *Sherlock Holmes*.

The ZiiSound T6 comes at a prohibitive pricing of ₹27,000. It offers a great sound quality in the mids and the Bluetooth connectivity is a good feature, but the bass performance – powerful but not accurate – certainly does not justify such a high price.

Nimish Sawant

7.0
10

Features 7.5
Performance 6.5
Build Quality 8.0
Value for Money 5.0



Now an app speaks for you

AssistiveWare has come up with Proloquo2Go that helps people who have trouble speaking in communicating normally. <http://dgit.in/NBv71k>

ICICI's Mobile App

ICICI bank has come up with a comprehensive mobile app for its customers. Check it out tell us if you like it. <http://dgit.in/NR4WBs>

Bazaar

WD My Book Live Duo

Much more than a plain, vanilla NAS drive

WD My Book Live Duo offers dual 2 TB drives which are configured in RAID 0 out of the box to give you a total of 4 TB. You can also configure it in RAID 1 setting, for backing up your data. On first glance, it looks like any other WD My Book drive with a bulky form factor, housed in a grey coloured plastic casing.

Setting up the drive is a quick 3-step process. In case you are asked for a password while setting up the NAS drive, you will have to reset the NAS. The WD My Book Live DUO dashboard offers a variety of features to add users, set up remote access facility, determine

which folders to share with which users, updating the firmware, set alerts and event notifications, among other things. Navigating through the dashboard is quite easy. You can also enable iTunes or DLNA streaming of audio and video files stored on the NAS.

We connected the NAS drive to a TP Link WR1043ND router and used a Dell Inspiron 13z. We got read speeds of 66.6 MB/s and 42.89 MB/s for sequential and assorted files, respectively. On wired LAN Write speeds were around 11 MB/s.



Using the WD2Go app, you can browse through your photos and documents. Just recently WD has offered a Dropbox integration with WD2go app, which will allow you to upload from or download

content to your mobile device.

At ₹24,499 it is priced at a slight premium, but the feature set offered such as accessing from mobile devices as well as remote access via a web browser make it a really compelling NAS drive, ideal for home use.

Nimish Sawant

Specifications

CPU: 800 MHz PowerPC;
Memory: 256MB; **Capacity:** 4 TB; **Interface:** Gigabit Ethernet; **Remote access:** Yes; **Weight:** 2.15 kg

Contact

Western Digital
Email: anil.kukreja@wdc.com
Website: www.wdc.com
Price: ₹24,499

6.5/10

Features	7.5
Performance.....	6.5
Build Quality	6.5
Value for Money	6.5

Corsair Vengeance 2000

No wires. And not much else either

Specifications
Frequency Response: 20Hz to 20kHz; **Impedance:** 32 Ohms @ 1kHz; **Sensitivity:** 105dB (+/-3dB); **Drivers:** 50mm; **USB power consumption:** 500mA

Contact

Corsair
Email: Indiaservice@corsair.com
Website: www.corsair.com
Price: ₹6,500

6.5/10

Features	8.0
Performance.....	6.0
Build Quality	7.0
Value for Money	7.0

The Vengeance 2000 is a 7.1 surround gaming headset, that features a foldable microphone. It sports five inch drivers which are trademark Corsair by now, but largely unusual in this segment. How does it perform?

Let's just say we started tolerating the sound quality when we got out of the audiophile mindset and entered the frag hungry, nutrition deprived gamer's. Much of the audio is garbled across the entire spectrum. Many of our test samples were "clipping" (for lack of a better word) at even low gain. The 2.4 GHz band wireless transmitter was definitely downgrading the bit-rate by a great extent. Since the 7.1 channel is virtual, it only kicks

in once you install the driver. It's a commonly held notion that gamers like their lows but the Vengeance 2000 crumbled while playing our 30 Hz and 50 Hz samples.

So what do we like about it? Little things like USB extender cable is a welcome addition, the fact that the microphone mutes when you fold the boom, the volume dial on the earcup, etc., give it some charm. Its claim of being able to do 40 feet also checks out and in-game immersion is pretty good. While the directional sound is not precise, with a stretch of your imagination you could say it's three dimensional



or surround. Of course the illusion of space is something any DSP effect can deliver at the software level. The microphone itself was clear – an important requirement for team-speak rage

fits. Speaking of which, the build quality seems like it can handle some amount of rage propelled flinging. At a price tag of ₹6,500 the headphone is reasonably priced for a wireless gaming headphone but not for a headphone, if you get our drift.

Siddharth Parwatay

Bazaar

mini ^{QUICK} INSIGHTS FROM INDEPTH TESTS

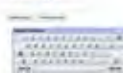
The Digit Test Centre receives hundreds of products every month. Each of these products is put through a series of tests, and is finally given a verdict. The final score is arrived at after considering a number of factors and evaluating them in terms of features, performance, value for money, build quality, and, in the case of software, even ease of use.

For better understanding of our ratings, here's a quick guide to our overall score

- 1.0 - 3.0 - Extremely poor product. Keep away!
- 3.5 - 5.0 - Strictly OK. Not recommended
- 5.5 - 6.5 - Decent product. Go for it, but there may be better products out there.
- 7.0 - 8.5 - Very good product. Highly recommended.
- 9.0-10.0 - Ground-breaking product. We've never seen anything like it before. A definite must buy!



Google



Virtual Keyboard by Google

Virtual Keyboard provided by Google allows you to type anything in your language using the programmed keyboard layout. <http://digit.in/MQS8qX>

CELLPHONE



Spice Stellar MI 425

Price: ₹9,999

LAPTOP



Toshiba Satellite M840-X4211

Price: ₹41,000

SPECIFICATIONS

OS.....Android 2.3
CPU / RAM.....1 GHz / 512 MB;
Display4.1-inch TFT, 480x800 pixels;
Battery2000mAh

Processor Intel Core i5-2450M
RAM..... 4 GB
Display 14-inches (1366 x 768 pixels)
Graphics Intel HD 3000

TEST CENTRE RATINGS (All Scores out of 10)

Features.....6.5

Comes preloaded with quite a few apps such as Rail Yatra, Spice Gang and a security app called NQ Mobile Vault.

Performance6.5

Keyboard could have been better, has a good display and the battery lasts one day.

Build Quality.....7.0

Has curved edges, good grip, plastic back and a glossy front with four touch sensitive function keys.

Value for money6.5

Value for money if you want an entry-level ICS ready device.

Features.....6.0

Packs decent hardware muscle and connectivity ports.

Performance7.5

Offers mid-range performance, and a smooth computing experience. Excellent battery life helps a lot though.

Build Quality.....6.0

The laptop's nice and compact, built well. Only its colour may be a bit of a faff!

Value for money.....8.0

For someone who wants a stable performing laptop, this is a good bet around ₹40k in the market.

WE SAY

6.5

At ₹9,999, the Spice Stellar has quite a decent build quality, sports good power under the hood, and with good inbuilt speakers. The biggest deal about the Spice Stellar is that it can be upgraded to Android 4.0 ICS, which is a bit of a surprise at the price range. The device houses a 5MP rear snapper whose performance can be considered as average. The interface is a little sluggish, the screen is a bit dull and the device is heavier than we'd like, but you should definitely consider this just for the OS upgrade feature.

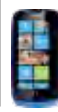
7.5

The Toshiba Satellite M840 is checking most of the positive boxes – stable performance, well put together, comfortable keypad, good display and the cherry on top of the cake – the excellent battery life. The blingy colour may not appeal to everyone, and this one will not do any gaming. But then again, this isn't targeted at that demographic anyway. Consider this, if this falls within your budget, because this does what a laptop is supposed to do – stay alive on the move!



Nexus 7 in India

Google Nexus 7 tablet is finally available online in India, and it is starting with ₹16,952. Take a look on the news story. <http://dgit.in/NZDTQU>



Lumia 610 in India

Nokia has launched their third Windows Phone, the Lumia 610 in India. <http://dgit.in/00ashF>

Bazaar mini

EXTERNAL HARD DRIVE



Freecom Tough Drive 3.0
Price: ₹7,500

PEN DRIVE



Kingston Data Traveler Vault Privacy
Price: ₹4,945

INTERNAL HARD DRIVE



Hitachi Deskstar 7K4000
Price: ₹28,000

REPEATER



ASUS EA-N66
Price: ₹5,900

SPECIFICATIONS

Unformatted Capacity931.46 GB
Rotational Speed.....5400 RPM
Interface.....USB 3.0
Cache Memory.....32 MB

Unformatted Capacity 7.46 GB
(WxDxH in mm).....77.9x22.2x12.05
InterfaceUSB 2.0
Warranty..... 5 years

Unformatted Capacity 3725.9 GB
Interface.....SATA 6 Gbps
Cache memory 64 MB
Rotational Speed.....7200 RPM

Type.....Dual-band
Network Standard.....802.11 a/b/g/n/
Throughput900N (in dual-band)
Antennae.....3 (internal)

TEST CENTRE RATINGS (All scores out of 10)

Features.....6.0
It comes in a silicone enclosure and has an attached USB 3.0 cable onto the drive body.

Performance.....6.0
Sequential Read / Write (in MB/s): 105.89 / 104.27 and Assorted Read / Write (in MB/s): 110.15 / 82.66.

Build Quality.....8.0
Has a sturdy casing with rubber-strip running along the edges providing ample shock resistance.

Value for money.....7.0
At ₹8.05 per GB this makes for an economical rugged drive.

Features.....8.0
It's a secure drive with 256-bit Advanced Encryption Standard to protect your data.

Performance.....5.0
Sequential Read / Write (in MB/s): 30.17 / 8.79 and Assorted Read / Write (in MB/s) 29.2 / 7.58.

Build quality.....7.0
It is water resistant and protected in an aluminum casing.

Value for money.....5.0
Not really a value for money product, but it addresses a specific niche.

Features.....6.0
Highest capacity internal drive having a five-platter design and a rotational speed of 7200 RPM.

Performance.....8.0
Sequential Read / Write (in MB/s): 167.91 / 153.42 and Assorted Read / Write (in MB/s): 162.47 / 138.31.

Build Quality.....NA
Durability is a function of prolonged usage, hence Build quality score is not applicable.

Value for money.....5.0
Priced higher than the 3TB 7K3000. Tough to recommend.

Features.....7.0
More focussed on being a repeater, it doesn't need as many features.

Performance.....7.0
The router performed quite well in our test, it was however let down by a considerable lack of range.

Build Quality.....8.0
A funky little device, it will not look amiss among your myriad gadgets and might even go well with your home-theatre.

Value for money.....7.0
Decent value for its performance and good looks.

WE SAY

6.5

The Tough Drive is a decent performing drive with a very good cost per GB when compared with other normal USB 3.0 drives. It comes in a very sturdy casing and is ideal for outdoor use. We had performed drop tests on the drive from a 5 feet height and the data was still intact. Avoid internal data transfers within the drive, as it tends to crawl while doing so. Its cable length is very short so you will have to use it only on the front USB 3.0 ports.

6.0

Data Traveler Vault Privacy is targetted at those individuals or organisations for whom security of the data being transferred is the only concern. The 256-bit AES encryption takes care of that. Speeds really aren't the forte of such drives. This drive come with a lot of customisable options such as setting password length, maximum number of password attempts, among other things. On 10 false attempts to break the password, it automatically locks down.

6.5

The Hitachi Deskstar 7K4000 is one of the best drives that we have tested, but its target audience is definitely niche such as content creation professionals who need tremendous space for storage. The cost per gigabyte offered by the 3TB drive is actually better than the 4TB drive. If your only prerogative is more capacity, then you are better off with 2x2TB Seagate Barracuda Green 5900RPM drives which will cost you less than ₹15,000. Bottomline - if money is no objective, go for this drive.

7.0

This router might seem overpriced when compared to other, much more capable routers we've tested before, but the primary function of this device is to serve as a wired or wireless ethernet repeater. And to that effect, it does its job brilliantly. The router is hobbled by its range (no signal in Zone 3), but the data throughput stood at around 37 MBps and was very stable. The web UI is simple to use and setting up the device in repeater mode is a breeze. All in all, a good repeater, compact and functional.

Price Watch

Get the latest prices of budget smartphones, Wi-Fi routers and DSLRs

Killer Rigs

Want to build a system but don't know what components to buy? Read on to know more.



Pick one that suits the use

Selecting the right processor is not as hard as it sounds, you just need to get a grip on what you will use it for and then proceed



Agent 001

agent001@thinkdigit.com

While going through all the letters we receive, requests for computer/laptop configurations are one of the most popular queries we receive. People need a processor that fits within a particular budget (mostly meagre) and should be able to process everything under the sun. Unfortunately, things of that calibre are yet to be viable for the consumer market. Who am I kidding? Those things will never hit the consumer market. Before it does so, it'll be stripped down and different SKUs of the same die will be brought out. Each with a unique feature suiting a particular budget range and given the popular trend, each with its own unique socket. Manufacturers have their own agenda for minting the most money it can while holding off innovation.


Choosing a processor is no biggie, all you got to do is list out what all you need it to do. Once you've got that taken care of, visit benchmarking websites and figure out which processor can handle which task the best. After you've shortlisted all the processors, you need to figure out which processor can handle most of the tasks you've listed. Chances are that within your budget you'll find a lot of processors. However, being in India, you will rarely have access to all of them.

If you want a budget system, then you'll be recommended the Pentium G620 or an AMD A6-3650 for integrated graphics. It's not because these processors are the best

for you but because that's all vendors stock. Did you know that for an absolutely budget friendly PC, a G530 does the job that a G620 can while knocking off a few hundred rupees? Or that a G850 which is a slightly expensive processor can be underclocked to reduce the overall power consumption while still being capable of doing more than the G620? Whenever, you feel more processing power is needed, bring it back to the stock frequency and you have a better processor. It works out to be a much viable option for long term budget builds.

Processors which can handle gaming needs a greater frequency range as some games are not that dependent upon the processor while some such as *Grand Theft Auto 4* and *Civilization 5* are. At low resolutions, in most games, the CPU becomes the bottleneck. However, most games aren't capable of making the best of a multi-threaded processor. So the usual recommendations end up being the Sandy Bridge i5-2300/2400/2500/2500K. The 2500K being the most versatile and most expensive among them. It's been months since Ivy Bridge has entered the market but when considering the cost, the Sandy Bridge processors are the way to go. Especially since the Sandy Bridge processors overclock much better and hold at lower temperatures. The iGPU on Ivy Bridge is better but when you consider the processor for a gaming machine, it becomes redundant since these machines will have a dedicated graphics card which will outperform the iGPU by leaps and bounds. When Intel comes out with a new processor after 18

months all you need to do is raise the multiplier up by a few notches and you'll have a processor that works at par.

For the top segment, the candidates hold enough power to make a machine that will last 6-8 years when raw processing power is needed. The premium segment doesn't show much advantage over the i5 for gaming. However, pure multi-threaded applications such as modelling/design software (Blender/3Ds Max/Maya), server applications and programming IDEs benefit a lot from a multi-threaded processor. So much that these applications have long since started focussing on the parallel processing architecture found on GPUs rather than CPUs. It won't be long before they are completely GPU dependent. For example, this month we performed GPU benchmarks and found that a simple AES encryption or decryption iteration performs better on the CPU, but when 1000 iterations of the same are to be performed, the CPU doesn't even stand a chance. Server processors are best suited for the job, but they're designed for long term use at a constant load and come with instruction sets for server based applications. Using such a processor for gaming is not unheard of but won't match the performance you'd get with the Core i7 series. The premium segment from Intel/AMD provides the immense computational power of each architecture while keeping it within a price point which is favourable that's what makes it appealing over Xeon/Opteron processors. Money is what decides whether you go in for a Core-i7 or a configuration that involves 1-4 Xeons on a workstation board. 

Play Torrents Online

Torrent Stream Magic Player allows you to play torrents movies or videos online without downloading them. <http://dgit.in/LzLaqd>



Run Android on Windows

Isn't it cool to experience the Android interface on your Windows PC? Run your favorite apps on PC with the help of BlueStacks app player. <http://dgit.in/Os67Jl>

Agent 001

All-in-one printer query

I need your expert advice to get:

1. An all-in-one printer for my home with quality wireless printing capability. My preferences are from HP and Canon only and budget is ₹7,000 to ₹10,000.
2. A 1KVA UPS is also needed. Budget is around ₹10,000. Please suggest the best one.

Satyadeep Tiwari

You can opt for the HP Photosmart 6510 e-AIO printer which has a WiFi connectivity option and comes for around ₹8,499 (<http://goo.gl/qsFfx>). It offers wireless printing functionality. As for the UPS



HP e-AIO 6510

go for APC Back UPS Pro-1000 (BR1000G-IN) which comes for around ₹8,299. (<http://goo.gl/pA7M5>)

External Blu-ray drives

I am regular reader and a big fan of Digit since 2003. Professionally, I am a doctor [General Practitioner] but I love technology. I want to ask you about laptop upgradation.

I am using Sony Vaio laptop [VPCEH28FN] which is having Intel Core-i5 2430M at 2.4 GHz, 4 GB RAM, 500 GB HDD, NVIDIA 410M graphics and a Windows 7 OS.

I want to upgrade the graphics chip to latest NVIDIA card. Is it possible?

Also I want to upgrade to a Blu-ray disc writer, so suggest for the same with available models and cost.

Dr. Vinod Rajput

You cannot upgrade the graphics card on your laptop as it is fused to the motherboard. As for Blu-ray disc writer, you will need to enquire with the service



Sony Blu-ray writer BDX-S500U

centre, if they have an internal Blu-ray writer which can fit within your laptop's DVD writer slot. If not, you will most probably have to go for an external one which you can connect to your laptop via a USB drive.

They cost a bit on the higher side. Here are two:

- 1) ASUS External USB Blu-Ray DVD WRITER Extreme 12X with USB 3.0 (<http://goo.gl/Pt8kZ>) for ₹11,000
- 2) Sony External Slim USB Blu-Ray DVD WRITER BDX-S500U (<http://goo.gl/MeDBS>) for ₹16,000 plus

Dell dilemma

I am an engineering student from Bangalore. I am thinking of buying a laptop in the near future and am extremely confused between two laptops.

Acer Aspire V3 (Core-i5 2nd gen, 4 GB RAM, 500 GB HDD, 2 GB NVIDIA 630M) priced at ₹44,000 and Dell New Inspiron 15R (Core-i5 3rd Gen, 4 GB RAM, 1 TB HDD, 1 GB AMD RADEON 7670M) priced at ₹46,000. I would like to know which one would be a better option.

Your review on Acer V3 was really good and I am eagerly waiting for your review on New Inspiron 15R.

I am really confused between Acer's aesthetic beauty and Dell's powerful specs on the sheet.

Janardhan HR

From the specs you highlighted between the Acer and Dell laptops, I think buying the Dell laptop promises better return on investment than the Acer machine, in this case. Here's why:

The Dell laptop has the latest CPU from Intel's 3rd gen Ivy Bridge line. It not only promises better computing, but Ivy Bridge processors are also less power

consuming than previous generation Intel Core processors. The Dell laptop has greater onboard storage ie. 1 TB HDD vs. Acer's 500GB.

Yes, the Acer laptop does have a better GPU on paper compared to the Dell machine, but this matters only if you are planning to game on your future laptop. Having said that, the Dell's 7670M graphics is pretty good, too.

Beauty is a subjective thing, what may be beautiful to you may not be beautiful for someone else. So if you think the Acer laptop fits your needs perfectly, definitely go for it. But since both laptops are priced very close to each other, the benefits of the Dell laptop are slightly better than what the Acer laptop provides to future-proof your investment.

To Ivy Bridge or not?

I want to upgrade my current desktop to an Ivy Bridge rig. I want to purchase only the following components:



ASUS HD7750

- Graphic card (which supports 3D)
- Processor
- Motherboard
- My budget is less than ₹30,000

Should I purchase anything extra over and above this?

Ujwal CS

Since you are only looking at an Ivy Bridge system, you will need the following components for the upgrade.

- Processor: Intel Core i5-3450 (around ₹9,000 to 10,000)
- Motherboard: Gigabyte GA-Z77P-D3 (around ₹7,500)
- RAM: Corsair Vengeance CMZ4GX3M1A1600C9 (around ₹1,700)
- Graphics Card: Asus HD7750-1GD5-V2 (around ₹8,050)

Firefox Mobile OS

Mozilla announced their very own open source mobile operating system which is entirely based on HTML5. It is inspired by their "Boot To Gecko" project

**EA launches SimCity Social**

Electronic Arts has announced the launch of a new social game called SimCity Social on Facebook, especially to compete Zynga games

SPEND SMART

Updated prices of budget cellphones, Wi-Fi routers and DSLRs



BUDGET CELLPHONES

Brand	Model	Operating System	Processor (in MHz)	Display Size (in inches)	Primary Camera (MP)	Battery Rating (in mAh)	Price (in ₹)
BlackBerry	Curve 8520	BlackBerry OS 5.0	512	2.46	2	1150	8,999
HTC	Explorer	Android 2.3	600	3.2	3	1230	8,699
Huawei	Sonic U8650	Android 2.3	600	3.5	3.2	1400	8,990
iBall	Andi 2	Android 2.2	800	3.5	3	1450	7,299
Idea	ID918	Android 2.3	NA	3.2	3.2	1300	5,994
Karbons	K616	Java	NA	3.5	3.2	1150	4,399
Lava	M70	NA	NA	3.2	5	1200	3,999
Lava	S12	Android 2.2	600	3.2	5	1300	5,399
LG	Optimus LE E400	Android 2.3	800	3.2	3	1500	7,799
LG	Optimus Me P350	Android 2.2	600	2.8	3	1280	6,999
LG	Optimus Pro C660	Android 2.3	800	2.8	3.15	1500	7,990
Micromax	Superphone Ninja A50	Android 2.3	650	3.1	2	1200	4,990
Micromax	A45	Android 2.3	600	3.5	2	1300	5,199
Micromax	Aisha A52	Android 2.3	1000	3.2	2	1280	5,699
Micromax	Superphone Ninja 2 A56	Android 2.3	800	3.5	3	1400	5,990
Micromax	A73	Android 2.3	650	3.5	2	1300	7,120
Micromax	A78	Android 2.3	650	3.5	3	1300	7,799
Micromax	Superphone Lite A75	Android 2.3	650	3.75	3	1300	8,545
Micromax	A80	Android 2.3	800	3.75	5	2500	8,500
Motorola	Fire XT	Android 2.3	800	3.5	5	1540	9,890
Motorola	EX119	NA	NA	2.4	3	910	5,699
Motorola	EX 226	NA	NA	2.4	3.15	910	6,199
Motorola	Fire	Android 2.3	600	2.8	3	1390	7,500
Nokia	C2-03	Symbian S40	NA	2.6	2	1020	3,850
Nokia	Asha 202	Symbian S40	NA	2.4	2	1020	3,845
Nokia	C2-01	Symbian S40	NA	2	3.2	1020	3,850
Nokia	Asha 302	Symbian S40	1000	2.4	3.2	1320	6,285
Nokia	500	Symbian Anna	1000	3.2	5	1110	9,525
Nokia	Asha 200	Symbian S40	NA	2.4	2	1430	4,070
Nokia	E5	Symbian 9.3	600	2.36	5	1200	9,399
Nokia	Asha 303	Symbian S40	1000	2.6	3.2	1300	7,765
Samsung	Champ Duos C3312	Java	NA	2.8	1.3	1000	3,890
Samsung	Galaxy Y S5360	Android 2.3	832	3	2	1200	7,490
Samsung	Star 3 Duos S5222	Java	NA	3	3	1000	5,650
Samsung	Galaxy Y Duos S6102	Android 2.3	832	3.14	3	1300	8,990
Samsung	Galaxy Y Pro Duos B5512	Android 2.3	832	2.6	3	1350	9,500
Samsung	Galaxy Pocket S5300	Android 2.3	832	2.8	2	1200	6,790
Samsung	Wave Y	Bada 2	832	3.2	2	1200	7,140
Sony Ericsson	Walkman WT13i	Sony Proprietary	NA	3	3.15	1000	5,199
Sony Ericsson	Xperia Mini ST15i	Android 2.3	1000	3	5	1200	9,990
Spice	M-6400	Java	NA	2.36	2	800	4,060
Spice	FLO ME M-6868N	Java	312	3.5	3.2	1150	4,065
Spice	MI-350N	Android 2.3	650	3.5	3.15	1500	7,710

Twitter Transparency Report

Twitter unveiled their very first transparency report with the help of Google. The report also provides insights due to government's requests



ASUS joins Warner Bros

ASUS and Warner Bros are giving customers the chance to get more immersed in the thrills of The Dark Knight

Price Watch



WI-FI ROUTERS

Brand	Model	Data Rate (Mbps)	Total LAN ports	Single / Dual Band	Price (in ₹)
ASUS	RT-N10+	150	5	Single	1,450
ASUS	RT-N15U	300	5	Single	6,000
ASUS	RT-N16	300	5	Single	6,500
ASUS	RT-N53	600	5	Dual	6,500
ASUS	RT-N56U	900	5	Dual	8,700
ASUS	RT-N66U	900	5	Dual	13,500
Belkin	Surf Modem (N)	300	4	Single	3,308
Belkin	Share (N)	300	4	Single	3,547
Belkin	N1 Vision	300	4	Single	4,560
Belkin	N750DB	750	4	Dual	8,699
Buffalo	WCR-HP-G300	300	5	Single	4,500
Digisol	DG-BR4000NG	150	4	Single	1,225
Digisol	DG-BR4300NG	300	4	Single	1,950
D-Link	DIR-605L	300	5	Single	2,499
D-Link	DIR-600L	150	5	Single	1,499
D-Link	DIR-636L	300	5	Dual	4,999
D-Link	DIR-827	600	5	Dual	10,999
Netgear	WNDR3700	600	5	Dual	10,625
SMC	WGBR14-N2	300	5	Dual	6,000
TP-Link	TL-WR841N	300	5	Single	2,000
TP-Link	TL-WR740N	150	5	Single	1,100
TP-Link	TD-W8951ND	150	4	Single	2,000
TP-Link	TL-WR1043ND	300	5	Single	4,300
Cisco Linksys	E900	300	4	Single	2,376
Cisco Linksys	E1200	300	4	Single	2,805
Cisco Linksys	E1500 with Speedboost	300	4	Single	3,623
Cisco Linksys	WRT160NL	300	4	Single	6,817
Cisco Linksys	E2000	300	4	Dual	7,684
Cisco Linksys	EA3500	750	4	Dual	11,385
Cisco Linksys	E4200	750	4	Dual	12,437



DSLRs

Brand	Model	MegaPixel Count	Sensor	ISO Range	Shutter Speed (In secs)	Price with Kit lens (in ₹)
Canon	550D	18	CMOS	100 - 3200	1/4000 to 30	33,945
Canon	1100D	12.2	CMOS	100 - 6400	1/4000 to 30	29,090
Canon	600D	18	CMOS	100 - 6400	1/4000 to 30	49,460
Canon	60D	18	CMOS	100 - 6400	1/8000 to 30	60,295
Canon	650D	18	CMOS	100 - 12800	1/4000 to 30	59,995
Nikon	D5100	16.2	CMOS	100 - 6400	1/4000 to 30	38,752
Nikon	D3100	14.2	CMOS	100 - 3200	1/4000 to 30	29,950
Nikon	D3200	24.2	CMOS	100 - 6400	1/4000 to 30	36,811
Sony	SLT-A57K	16.1	CMOS	100 - 16000	1/4000 to 30	44,990

digit KILLER RIGS

Everything you'll ever need to build your own PC. Whatever your budget.

■ Basic rig = ₹20,665 ■ HTPC = ₹22,950 ■ Entry-level gaming = ₹34,715 ■ Mid-range gaming = ₹54,250 ■ Ultra high-end = ₹1,63,324

BASIC RIG

Processor	Intel Pentium G620	3,300
Motherboard	ASRock H61M-PS2	2,750
RAM	Corsair Desktop RAM 2GB DDR3 1333MHz	700
HDD	Seagate 500GB 7200.12	3,800
Monitor	BenQ G610HDAL	3,900
Graphics Card	None	0
Cabinet	Cooler Master Elite 310	1,600
PSU	FSP Saga II 400W	2,000
Speaker (2.1)	Altec Classic Audio BXR1221	1,200
Mouse	Zebronics Judwaa 5 (Bundle)	0
Optical Drive	LG 22x SATA DVD Writer	950
Keyboard	Zebronics Judwaa 5 (Bundle)	465
Sound Card	None	0
Total		20,665

HTPC

Processor	AMD A6-3650	5,900
Motherboard	ASRock A75M	4,300
RAM	Corsair 2GB DDR3 1333MHz	700
HDD	Seagate Barracuda 2 TB	6,350
Monitor	None (your TV)	0
Graphics Card	None (HD6530D onboard)	0
Cabinet	Zebronics Tambi	2,000
PSU	Bundled (150W)	0
Speaker	None	0
Mouse	MS Wireless laser Combo XVA-00020	2,750
Keyboard	Bundled	0
Optical Drive	LG 22x SATA DVD Writer	950
Sound Card	None	0
Total		22,950

ENTRY-LEVEL GAMING

Processor	AMD Phenom II x4 840	5,500
Motherboard	GIGABYTE GA-MA78LMT-S2	2,600
RAM	G-skill F3-10600CL9S-4GBNT	1,200
HDD	Seagate 500GB 7200.12	3,800
Monitor	BenQ G2222HD	7,000
Graphics Card	Zotac 550Ti	7,450
Cabinet	Cooler Master Elite 310	1,600
PSU	Corsair CX430	2,300
Speaker	Altec Lansing V2621	1,850
Mouse	Zebronics Judwaa 5 (Bundle)	0
Optical Drive	LG 22x SATA DVD Writer	950
Keyboard	Zebronics Judwaa 5 (Bundle)	465
Sound Card	None	0
Total		34,715

MID-RANGE GAMING

Processor	Intel Core i5-2400	11,200
Motherboard	MSI-H67 MA-E35	4,850
RAM	G-skill F3-10600CL9S-4GBNT	1,200
HDD	Seagate 500GB 7200.12	3,800
Monitor	Samsung P2350	10,800
Graphics Card	Radeon HD 6870	11,300
Cabinet	Cooler Master Elite 130	1,600
PSU	Corsair GS 600	4,000
Speaker	Altec Lansing V2621	1,850
Mouse	Razer Abyssus (bundled)	0
Optical Drive	LG 22x SATA DVD Writer	950
Keyboard	Razer Cyclosa (Bundled)	2,700
Sound Card	None	0
Total		54,250

ULTRA HIGH-END GAMING

Processor	Intel Core i7-3770K	21,400
Motherboard	Gigabyte Z77X-UD5H/WB	20,700
RAM	Gskill F3-12800CL9D-8GBXL	3,350
HDD	Seagate 2 TB + Intel 520 120GB	18,149
Monitor	BenQ XL2420T	21,000
Graphics Card	ASUS AMD Radeon HD7970	35,500
Cabinet	Cooler Master HAF922	7,200
PSU	Seasonic X850 (80+ Gold)	10,000
Speaker	Logitech Z506	5,825
Mouse	Logitech G9x	4,200
Optical Drive	LG 12x Blu-ray OEM RW	6,500
Keyboard	Logitech G510	4,800
Sound Card	ASUS Xonar DX 7.1	4,700
Total		1,63,324

OPTIONAL ACCESSORIES

Speakers (5.1)	Logitech Z5500	18,500
Controller	Xbox360 Controller (wired)	1,350
Controller	Logitech G25 Racing Wheel	1,7000
Webcam	Microsoft LifeCam HD	2,000
Headset	Creative Tactic Sigma	4,000
System Fans	Noctua NF-P12-1300 120mm Case Fan	950
External DVD-Writer	Asus/Toshiba/Bufalo	1,950
Sound Card	ASUS Xonar Essence STX	9,000
USB Hub	Belkin 7 port USB HUB	1,000
Wireless router	TP-Link WR740N	1,100
CPU Cooler	Noctua NH-D14	5,250
CPU Cooler	Coolermaster Hyper TX3	1,900
Thermal Paste	Arctic Cooling MX2	400

worldview

OUR PICK OF THE BEST TECH ARTICLES FROM AROUND THE GLOBE

(MUST READS)

AMERICAN DEGREES NOT HELPING THE CHINESE

So you thought getting an American degree is the ticket to success? Read on this story which talks about how that is not the case in China.

<http://dgit.in/NLyMY5>

E-READER OWNERS, YOU HAVE BEEN WARNED

Not only do companies know what books you have purchased, but how long it will take you to finish off George R R Martin's 'Clash of Kings', which sentence you are most likely to highlight, what is the probability that you'll finish the book and much more.

<http://dgit.in/Mz7qBm>

ANONYMOUS 101



This article gives a very good insight into how Anonymous goes about picking its targets and launching attacks.

<http://dgit.in/NLEFEz>

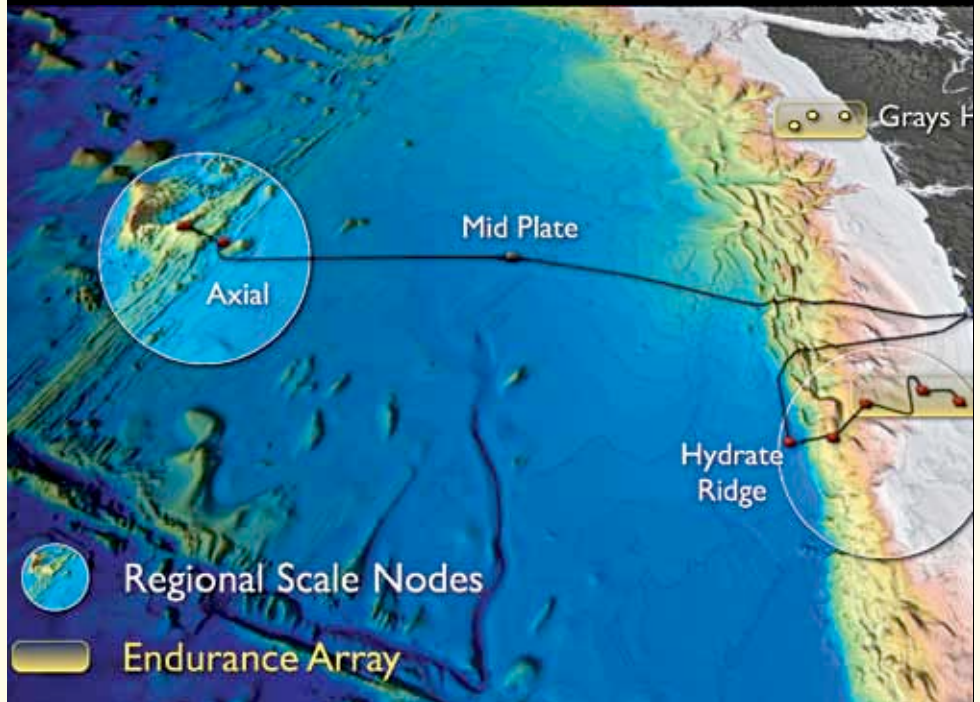
AN ART PROJECT GONE BAD

Media artist Kyle McDonald had installed a program on 100 computers at two Apple stores in New York, which took pictures every minute and sent it back to his server, as part of his Art Project. One fine day, Secret Service agents turned up at his house. Read his story.

<http://dgit.in/0INa03>

(Discover Corner)

WIRING UP THE OCEAN



Does ocean chemistry alter climate? Will the web of marine life deliver new energy sources from the sea? A magnanimous undersea network made of powerlines and optic-fibre cables along with robots to be controlled from the shore, is part of the Ocean Observatories Initiative which aims to bring together the inter-relationship between the sea floor, water and the atmosphere. <http://dgit.in/Q5APIV>



Making things disappear

Scientists are working on various types of masking instruments such as an earthquake cloak protecting buildings to water cloaks for protecting ships from pirates among other things. Read on which other masks are being worked on.

<http://dgit.in/MskEkZ>



Future of flight

In this slideshow, designers let their creativity flow and illustrate how we will be flying by 2052 where you can have panoramic view of the sky, fitness centres, theatres or even swimming pools aboard flights. It's like a cruise ship with wings.

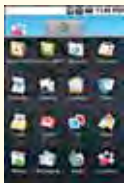
<http://dgit.in/LXhpG0>



Post-apocalyptic condo

A former engineer in the US has bought a 174-foot deep hole from the government in which he plans to build a post-apocalyptic condo by 2013. It is neatly divided into food storage units, living quarters, and even entertainment hubs.

<http://dgit.in/NEyh3w>

A VISUAL HISTORY OF ANDROID

Three years, eight major releases. The Verge takes us on a journey of the Android operating system right from Android 1.0 to 4.1 - the latest Jelly Bean iteration of the OS.
<http://dgit.in/NcHosB>

ADDICTION OF THE EVERYDAY KIND!

According to a latest research, Internet addiction can not only make us lonely and depressed, but can also be a stepping stone for some extreme forms of mental illnesses. In our need to be constantly connected, our brains are being rewired to some extent, permanently.
<http://dgit.in/NN4eoM>

THE IRL FETISH

How often do we hear about the whole online vs offline debate? This essay puts forth a case that our online world is as much a part of real life as our offline world, even with us making conscious effort to separate the two. In fact these two world's cannot be mutually exclusive.
<http://dgit.in/McAUs0>

FUTURE OF FLASH MEMORY

With memory getting cheaper by the day, does the future of flash memory only mean increased capacities and lower cost per GB or is there more? Ars Technica takes a look at the future of flash memory while analysing some of the current problems faced.
<http://dgit.in/NNevl4>

The Growing Demand for Smaller Tablets

There is an increasing market for 7-inch tablets, and Apple might want in on the action

- By Tim Bajarin



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By now, I am sure you have heard a lot of reports that Apple is planning a 7-inch tablet for the near future. I don't know if this is true or not but it turns out that 7-inch tablets are becoming a rather important product in the market.

Until Amazon brought out the Kindle Fire, a lot of industry folks really questioned the value of the 7-inch tablet. In fact, Steve Jobs himself dissed the idea at an AllThingsD conference I attended a few years back. I never took his disapproval of this 7-inch category too seriously, though, because I was with him when he said he would not release a smartphone, but as you know, two years later he did exactly that.

What has become clear, thanks to the Kindle Fire, is that there is now a real demand for 7-inch tablets as media consumption device, an important distinction for models of this size. The iPad has proven that even though Apple initially positioned it as a media consumption device, the company hedged its bets that it could cross over to a productivity tool by introducing Pages and Numbers for it at launch.

By the time Apple introduced the iPad 2, it started to highlight its role in produc-

tivity and started to share how corporations were using it in their businesses. The iPad has now proven itself to be quite versatile in handling both media consumption and productivity rather deftly.

When it comes to media consumption, though, the 7-inch tablets are even more ideal. They are smaller and lighter but more than capable for viewing mobile movies, listening to music, and even reading magazines. What's more important is that early studies are revealing that Generation X and Generation Y users are more than comfortable using this smaller screen tablet while older generations covet the larger versions.

In fact, some of the major publishing houses are excited about the 7-inch models because they see it as dramatically expanding market demand for ebooks and digital magazines.

Although I find reading

magazines on the iPad to be a better experience since there is less scrolling involved, a 7-inch tablet still does a decent job and, of course, it is an ideal size for an ebook reader.

All the news around this makes me think there is some truth behind at least the idea of an iPad Mini, leaving an interesting question on the table for Apple. I have to believe that if it comes to market, it will be more like a larger iPod, assuming its goal is more media consumption-focused. So, Apple, should it have the iPod touch or iPad moniker? Given

its competition is calling the 7-inch models "tablets," it would be hard for Apple not to call it an iPad.

It is now clear, however, that there is real demand for 7-inch tablets and that will not wane. Although growth of the models is flat at the moment, new products in this category from Google and Amazon will make them the hot tickets this holiday season. Can you imagine what a scramble it would be if Apple got into this space too? We could have one of the hottest tech holidays we have ever seen.

One other question worth pondering is how tablets of either size will affect laptop purchases. I have seen a couple of studies that suggest it will decrease demand for laptops by as much as 20 percent come the end of this year. Microsoft's Surface tablet with keyboard blurs this area even more, but it is important to remember that people use technology to handle specific needs. A 7-inch tablet is really too small for any serious productivity usage, while the iPad with a keyboard does quite a good job, up to a point, with productivity apps.

I find that when it comes to heavy lifting tasks like editing large documents or spreadsheets, even the iPad falls short in functionality. This gives me much more hope that the new breed of ultrabooks will strike a chord with people and that they will also be big sellers this holiday season.

The bottom line is that demand for tech products will be on a very strong upswing by the end of the year and these new 7-inch tablets will make up a lot of the volume.



SOME LOVE FOR THE 80S

A tongue-in-cheek look at why the design sensibilities

of the 80s were awesome. Relive those simpler times, if you were born in the 80s or acquaint yourself with an aesthetic era, if not.
<http://dgit.in/LUQrly>

WILL OUYA SUCCEED?

OUYA, the Android OS based console, has created a lot of buzz in the tech circles - and it's not even selling, yet. A Kickstarter campaign is what got a lot of the international media talking. They have garnered over \$4.9 million. An article arguing for and against OUYA.
<http://dgit.in/SBhPAX>

53 THINGS THAT'VE CHANGED SINCE IPHONE

A pictorial look at 53 things that changed

since the iPhone came out back in 2007 such as the downfall of Nokia, proliferation of the term App. Some of them are really funny. Laugh on.
<http://dgit.in/LIMSvd>

WHY THE HIGGS BOSON IS IMPORTANT

A lot of our luddite friends kept bugging us with the question: What is so special about the discovery of the Higgs Boson? This New York Times essay written by theoretical physicist tells us why this discovery is so pertinent and why we should all care about it.
<http://dgit.in/LUVj79>

Is Twitter Passé?

While the number of users might suggest that the microblog has grown, the purposefulness of it has gone down the drain

- By John C. Dvorak



PCMAG
DIGITAL
NETWORK

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Has Twitter lost its lustre? It's finally penetrated the consciousness of most Americans and a lot of people have accounts, but does anyone use it much for its original purposes?

I have noticed a decline in the usefulness of Twitter over the years. At one point near the beginning, I was one of the top 20 users with something like 10,000 followers. And the service was actually more useful then than it is now.

With 10,000 followers, I'd mention something using a traceable link and perhaps 3,500 people would click have clicked it. Seldom was it less than a 1,000. Now I have over 85,000 followers, which is a blip on the radar as A-list movie celebrities have millions. When I tweet a traceable link, it will maybe get the attention of 500 people.

So, while my numbers are bigger, my impact is far less. This can only be reconciled by a few possibilities: First, the newer followers are less inclined to click on links. The original followers may have bailed out and are now ghost followers with no current interest in Twitter. Perhaps most of the newer followers are ghost followers, too.

Second, there is the crowd sourcing aspect to Twitter. I use Twitter as a virtual search engine to find something that may be quite obscure. When I had 10,000 fol-

lowers, they were very on the ball. Now when I crowd source a question, most of the followers who reply have nothing to suggest but say, "Let me know what you find out and repost it please!"

This tells me that the tech nerds who scoured Twitter in the early going have lost all interest and fled back to specialty forums like Slashdot. I can still get answers, but not like before.

The boots-on-the-ground reporting that is prevalent on Twitter has changed it for the better, though. I think the death of Michael Jackson first broke on Twitter as have many other news stories.

The trending topics list often shows breaking news items long before they hit the real press. It doesn't cover every story in the world, but it does break enough to make it interesting. On Wednesday, for example, I discovered early that Digg was finally bought out for a mere \$500,000. This was one of the hottest news sites in the world for a while, surpassing the New York Times in page views.

Curiously, Digg parallels Twitter insofar as its timeline is concerned. Twitter began in March 2006 and Digg was started in late 2004. When you look at the sales figures versus the costs for Digg, for every six million that came in, 10 million went out. This is not the ratio you want.

But it was the waning interest in Digg and its social network model that was the

problem. People just got tired of it for whatever reason. One possibility was the continual changes made to the original idea—constant tweaks that changed the nature of the service. This happened at Digg to an extreme.

This could be happening to Twitter. The company has been catering to shallow celebrities who will quickly get a few million followers then never tweet anything. Others just tweet news about their shows incessantly. This quickly gets retweeted by fans then it becomes spam for the rest of the users.

None of this is helped by outside sites that use Twitter as a mirror for the stupidity on their sites. In this case, I'm referring to foursquare. Every idiotic check-in is reposted on Twitter to people who do not care that you have checked in at the Des Moines downtown McDonald's.

So, we may be seeing a confluence of trends in and around social networking that bodes ill for all these platforms, including Facebook.

Digg had early opportunities to sell out for perhaps \$100 or \$200 million. Twitter did, too. It will be interesting to see where Twitter ends up as the scene further deteriorates. In the meantime, follow me on Twitter (@THErealDVORAK) to the end. We'll go down with the Twitter ship together.



ASAPSCIENCE

AsapSCIENCE is one cool YouTube channel for science geeks. The videos



are presented in a fashion very similar to the ones seen on Minute Physics, but they cover much cooler things such as The Science of Superheroes, where they analyse which attributes of Spiderman could legitimately happen and which can't.

<http://dgit.in/OilOkG>

(QR Code)



For a list of all the links from this section, head over to dgit.in/wvaug2012 Or point your phone to the QR code above

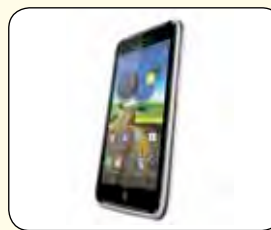
(PRODUCT LAUNCHES)

PANASONIC LUMIX DMC-LX7



Panasonic refreshed its Lumix line of cameras and launched LX7, which will succeed LX5. Sporting a 1/1.7-inch sensor, the optics on the LX7 is crafted by Leica having a maximum aperture of f/1.4. The ISO range goes from 80 to 6400. It's capable of shooting in the RAW mode.

MOTOROLA ATRIX HD



Atrix HD sports an Android 4.0 operating system housing the 1.5GHz Snapdragon S4 SoC. It has the circles widget which lets you toggle between time, messages, lets you toggle for weather between different cities. It is expected to cost approximately ₹35,000.

NEXUS Q



According to Google, this orb-shaped device is the world's first social streaming media player which was launched at Google I/O, allowing multiple Android devices to queue and play content on the same Nexus Q. Comes with a USD 299 price tag.

WORDJUMBLE

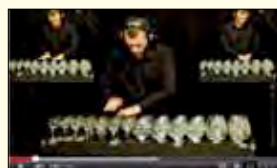


ABSOLUTE
TIMEPASS

There are
20 tech
terms in this
jumble. Find
them all...

Top 3 YouTube Picks

Make sure your boss doesn't catch you goofing off with one of these playing on your screen



Harry Potter on glass harp

Duration 01 min, 48 sec

Music being played using just wine glasses and water
<http://dgit.in/MwoZra>



An incredible own goal

Duration 00 min, 41 sec

This one's a masterpiece. Do check out the coach's reactions.
<http://dgit.in/LyaoKe>



Sword Fight

Duration 01 min, 22 sec

It uses high-speed locational phone-to-phone gaming.
<http://dgit.in/Nx8sBv>



Interview with
Lars Hoogweg, CTO,
Nimbuzz.
For the complete
interview visit:
dvwx.in/NCHtA8



Gaming boost: Valve announces Linux support

After years of rumours and leaked clients, there is finally confirmation from Valve, that they are indeed looking towards Linux as their next platform. For those who are unfamiliar with Valve, it is the operator of Steam, the biggest digital retailer of games. It is also the creator of the popular *Half-Life*, *Portal*, and *Left 4 Dead* franchises. This is indeed good news not only for Linux users, but also for Linux as a platform as well.

Gaming is one of the aspects of computing that had been rather weak on the Linux platform, primarily due to lack of support from developers and producers.

Recently, there has been a huge increase in the number of games being released for Linux, with Valve and Steam behind Linux, things should get even better. It is important to note that Valve's games already run quite well under Linux for those who use Wine

to run Windows software. Valve, has also launched a new Linux blog so that there is an official source of information about what Valve is doing with Linux.

According to the first post on its blog, it has been working on getting Steam running on Linux—just Ubuntu initially—since quite a while and in 2011 it formed a Linux team. *Left 4 Dead 2*, one of its comparatively-recent games is already running on Ubuntu, and other Valve titles are also being worked on.

The Steam client itself is running on Ubuntu with “all major features available”. Valve summed up the development on its blog with the following: “We want this to be a community of open source game developers, communicating with each other and talking about current efforts and future efforts in a powerfully creative environment.” >

Read the entire article at <http://www.devworx.in> and share your comments on our Facebook page.

*side panel



*Facebook SDK for iOS

>> The latest Facebook SDK for iOS, includes improvements and features such as simplified user session management, and ready-to-use native UI views. For details, go to <http://dvwx.in/NewD9g>

*Building Cross Device Web Apps

>> Here's an interesting approach to building cross-device webapps with the tons of internet-connected devices out there. <http://dvwx.in/Ny3WBr>



*Lumia 900 feels outdated

>> After it was revealed that existing WP7 devices will not get a WP8 upgrade, Nokia's flagship device seems outdated. <http://dvwx.in/OMK8IG>

*footer

*Enterprise Application architecture

>> Delivering a rich user interface for a mobile application can be either done natively or using HTML5 with Javascript. Native applications can provide a rich user experience. HTML5 with Javascript has opened the door for device-independent user interfaces. For more information read the article online at:

<http://dvwx.in/NeF84h>



*RIM loses \$147 million suit

>> A jury in San Francisco upheld claims by Mformation Technologies Inc that RIM infringed patents it took out in 1999. To know more, visit:

<http://dvwx.in/M8uIzR>

*Windows Phone 8 ready for business

>> Windows Phone 8 promises a host of new features that makes it more productive for business users. While most of the coverage following the announcement focused on performance improvements and user features such as the new start screen, multi-core processor support, digital wallet, removable storage and Internet Explorer 10, there are several new capabilities for IT. Read more at:

<http://dvwx.in/SEz8AQ>



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Evolving with Responsive Design

>Responsive design is a popular term among web designers these days. What does it really mean, and why is it important? We hope to answer those questions and more> by Kshitij Sobti

A common property attributed to responsive design is the ability to resize columns and reorganise content structures based on the form factor of the device screen. Effectively, a three-column website could switch to two-columns when viewed on a tablet, or single column on a smartphone.

What is responsive design?

There is a vast spectrum of devices available these days and can range from a 3-inch mobile to a 60-inch TV set. Be it mobiles, tablets, netbooks, laptops, desktops, or televisions; most of these devices have browsers.

Responsive design is about understanding and responding to each of these devices. For example, mobiles and tablets essentially being touch devices, wouldn't benefit from fancy hover effects. TVs, on the other hand, are a beast of their own, and care needs to be taken to ensure that text is readable on screen, considering it is likely being viewed from a distance. Another factor that needs to be considered is data consumption on slower devices, especially GPRS and EDGE devices compared to a broadband-enabled device.

Conceptually, responsive design is similar to progressive enhancement, where you keep in mind the users who have the oldest browsers and computers, design their experience and ensure that it works. Then on top of that you can layer enhancements that make the site better for those who are accessing the website from a modern browser and modern machines in a less restrictive environment.

With responsive design you take into account the most basic experience of your website—which will likely be designed for mobile consumers—and you enhance that with more information, and features as the device gets more powerful and large.

Responsive design is more than just layout and screen size; it's also about bandwidth and device capability. A good example would be an article on the subject of the Eiffel Tower. For readers viewing the article on a desktop with a large monitor, you could have a nice wide header image with the Eiffel Tower. However if you were to simply resize the image for a mobile user, the results aren't very good—the tower is barely visible. A good responsive site would have an appropriate image rather than just a resized one.

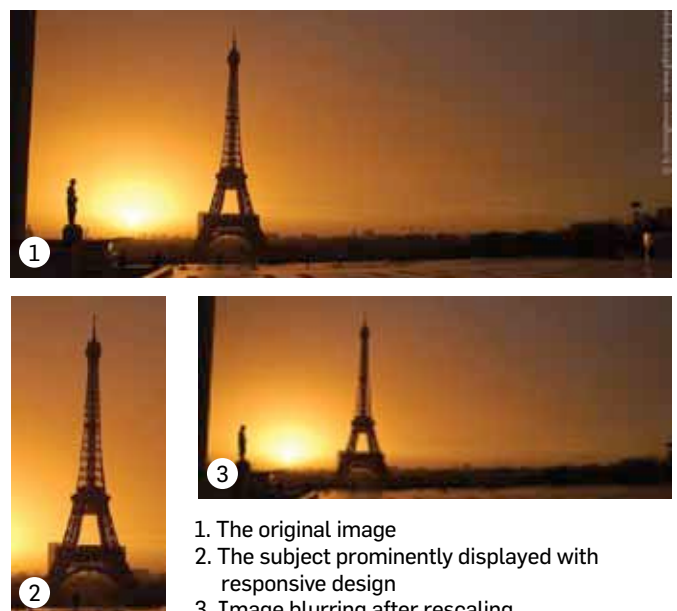
So Responsive Design isn't about creating a different experience for each possible device, but to make your design flexible enough, and adaptable enough, that it can respond to any kind of device it is accessed from.

Why is adaptive design important?

This is a simple one. Because being considerate is important, simply because giving your viewers the best experience possible on the device they're using is *the* right thing to do. Responsive design in the end is about responsible design.

Let's make an analogy that puts this in "real world" terms. Imagine you go to a restaurant that has seating for groups of four. If you come with any fewer or more than four people, they refuse to serve you. You wouldn't be very happy would you? On the other hand, they could be responsive to your needs, by adding seats to the side if there are up to six people, or joining tables to accommodate more people. If you're annoyed that this has nothing to do with the web, we will have you know the waiter was noting orders on a web app running on an iPad — there, happy?

Similarly, no one likes to visit a website where they have to scroll horizontally on their mobile in order to read stuff. Or where the website uses huge images that make it load slowly on a mobile connection. People don't like mobile-centric experiences on their desktops either. They won't like it if your images look like crap because they were created for a smaller screen and navigation will be cumbersome. If you don't care about mobile web consumers, start now. It's



audience that is quickly growing. This might not seem very new. There have been mobile websites for a long time you might say. Ah! But the fact is there aren't two different webs for mobile and desktop. They aren't two separate worlds any more! You had mobiles and desktops, then you got netbooks, now we also have TVs and tablets, what next? Can you create a separate website for each? What about the iPad 3 and iPhone 4, which have small screens but higher resolution?

Responsive design is important because it forces you to think about these things. A well designed responsive website is already ready for that new device coming out tomorrow with that weird aspect ratio and unconventional resolution.

How to go responsive

While there is a continuum of devices and resolutions going from 3-inch to 60-inch with nearly every step in between, it is obviously not possible to respond to every pixel change. Responsive design is thus fluid, not based on a fixed width, but rather the width of the browser, such that as the size of the browser changes, the elements of the page scale with it.

However, as we have said before, this isn't enough. Just scaling down the page will make it difficult to navigate or read. So while resizing is fine within reasonable limits, after a point we should consider adapting the layout to the new size.

You can look at the standard size of a tablet device, and change the layout of your website to a tablet-friendly layout when the size of the browser falls below that limit. This can be done purely in CSS using a feature called media queries. CSS media queries are a powerful way to take the same HTML structure and style it differently based on the form factor of the device being used to view the page.

Here pixel density is also an important consideration. The iPad 3, for example, has a display resolution that is higher than most desktops, but sending it the desktop version of your site is a bad idea, since it is a much smaller screen than a desktop of a similar resolution (9.7-inch compared to 27-inch). Luckily, CSS can query this as well.

Now when the screen size moves to a smaller size still you know that you have reached mobile territory, and you need to adapt your layout once again. At this point, you are best off with a single-column layout. Once again the screen width isn't enough, because a device like the iPhone 4 has a display resolution that is close to tablet territory. Similarly you can use CSS media queries to detect when the website is being viewed on a TV, and change the layout and style accordingly. You need not restrict yourself to predefined form factors of mobile,

*pointers

>> Nuggets of cool code at work



*Advanced Features from Adobe and Google

>> Innovative new features include CSS Regions, Exclusions, Shaders, and the Shadow DOM.

Duration > 1:01:10

<http://dvwx.in/MpZlHe>



*Web RTC and P2P in HTML5

>> WebRTC brings webcam access, p2p, and rich audio/video communication capabilities to the browser. Justin Uberti of Google discusses the future of browsers

Duration > 41:54

<http://dvwx.in/SL4Ook>



*The Web can do that?

>> A look at all the possibilities with HTML5 and the latest open web standards, by Eric Bidelman, from the Google Chrome team.

Duration > 43:07

<http://dvwx.in/Mz0qJW>



*The Web platform's cutting edge

>> Dimitri Glazkov, and Alex Komoroske share what they do, and how you can start playing with these powerful technologies to build robust, reusable, and packageable components.

Duration > 47:45

<http://dvwx.in/Pppp1r>

*shortcomings

>> These aren't shortcomings of the Responsive Design "philosophy," but rather the shortcomings of current web standards and technologies that make creating a good responsive website difficult. One of the biggest sore spots when it comes to responsive design, is the matter of responsive images. Let us warn straight away that this problem has not been completely solved yet, although there are some clever solutions out there.

While it is an easy matter to deal with image assets used by a website's design, such as the headers, logos and other elements of design. One simply has to use the correct image depending on the media query. However how do you deal with images embedded in HTML using the tag? Turns out this is not as simple as one might think.

If you use JavaScript to insert an image, none of our images will work without JavaScript. If you have JavaScript change the image source based on the the device size, it will fetch both the smaller and larger version of the image.

This can be a long topic in itself but we'll spare you the details and just tell you that there is no solution that works entirely in the browser, across all browsers. Current solutions rely on a combination of client-side JavaScript code, and server-side code to select and send the best asset for the device requesting the image.

Worry not, there is ongoing work to create standards that deal with this issue, since it is likely to be central to the web in the future.

Another big shortcoming of current standards is that while CSS can be responsive to screen size and pixel density using media queries, it is not possible to take into account the power of the device, or the bandwidth of the connection. For now the common assumption is that the smaller the screen, the slower the device and its network connection. This isn't always true. Take for example the latest third-generation iPad, it has a higher resolution than most desktops, but is less powerful and likely has a slower internet connection. Similarly even the most powerful of desktops in India are often have rather poor internet connectivity.

tablet, desktop and TV; you can add as many breakpoints as you wish and adjust based on those criteria.

As you can see, Responsive Design isn't just based on the use of any particular technology; but, rather at using everything at your disposal to ensure that your website is adaptable to any kind of device. >

Read the original article online on devworx. Visit www.devworx.in



>>“Nimbuzz is far beyond a replacement for SMS”>>

>>Lars Hoogweg, CTO, Nimbuzz.

How different is Nimbuzz from other popular apps such as WhatsApp, Fring or Samsung's ChatON?

When a user downloads the Nimbuzz application, they can call or chat with their friends on Facebook; their Gmail, and Yahoo! contacts; and also others who are not on Nimbuzz yet. When it comes to other IM applications, we're far ahead in terms of user base and also in product aspects and user interface. We believe in bringing more value to users and that's why we have opened our APIs for developers. Nimbuzz is the benchmark for mobile communication, and not just a replacement of SMS.

Do you have any plans to expand to newer platforms including web?

We are following the latest web developments closely. At the moment mobile web does not offer some of the native capabilities that we need such as VoIP. We are adding more web content in our clients to drive the NWorld portal. This allows us more flexibility and increases our speed to market. We do not need to release a new client if we want to change some existing module.

Is it worthwhile to focus on native application development or is cross platform development tools more rewarding to a developer?

The native app developers get better performance and integration, while the cross platform development gets broader reach and better standardisation. We are present in both the categories and we believe in their strengths and working towards minimising the weaknesses. >

Read the entire interview on devworx.in and visit fb.com/devworx.in and share your comments.

*contests



>>devworx provides you the opportunity to prove your expertise in different developerWorks platforms. We encourage you to exhibit your deftness. Whether you are a techie, coder, developer, a start-up company, or an app junkie, devworx Contests open the door for aspiring and emerging developers to showcase their development skills.

We thank participants for taking interest in our initiatives, especially contests, which are increasingly getting popular. The responses are always towering and we saw an opportunity to really show off what developers can do. These contests provide us an opportunity to interact with different psyche and take feedback on

various developer initiatives. We have always wished to accommodate developers from every platforms to participate, win and share their experiences.

Going by the popularity of devworx contests, we have increased the prize kitty and tried our best to make it as interesting as possible. These contests present multiple chances for the individuals and their techie friends and family members to participate and win big prizes.

Participating in these contest gives them a chance to stay informed, educate, entertain and come closer to various programming brains across the country. Happy Winning!

<http://dvwix.in/SavvyContest>

*distro dose



Porteus 1.2

>>Porteus is a fast, portable and modular live CD/USB medium based on Slackware Linux. The distribution started as a community remix of Slax, another Slackware-based live CD, with KDE 3 as the default desktop for the i486 edition and a stripped-down KDE 4 for the x86_64 flavour.

<http://dvwix.in/MNRAlu>



VectorLinux

>>VectorLinux is a small, fast, Intel based Linux operating system for PC style computers. The power user will be pleased because all the tools are there to compile programs, use the system as a server or perhaps the gateway for home or office computer network.

<http://dvwix.in/O2fEW3>



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Printing Solutions

On the look out for an office colour printer? Read on to find the best solution for you

Smart SoHo

We take a look at the surveillance technology which allows you to keep a watch over your home or office over the internet

State of the Web

To gain insights into the Indian domain market, the upcoming brand new TLDs, and its impact on us, we spoke with BigRock and PIR (Public Information Registry). Excerpts from our interview:

Jayesh Shinde

jayesh.shinde@thinkdigit.com

What are your thoughts on domain registration in the country?

Shashank: Directi Group (a parent organization of BigRock) has a fairly large number of domain names not only in India but globally, and here are some interesting research findings. India has over 100 million people online. The total number of domain names registered by registrants from India is anywhere between 3 to 4 million, which effectively gives you the domain name to the internet user ratio, which is about 3.5 to 4 percent. That number is pretty low compared to other countries like Germany which has the ratio of 36 to 40 percent, which statistically means that out of every 100 internet users there are 35 to 40 domain names registered within that country. Countries like Turkey are at 75 percent, while China has 5 to 6 percent. The point I'm trying to make is many of these countries are ahead of us in these domain name to internet user ratio. But the fundamental belief given the increase in number of online users and number of businesses, individuals or organisation looking to establish an online presence, the Indian figures are only going to exceed. And they're doing it pretty rapidly.

Google India has a target of putting up 1 million Indian businesses online by the end of 2012. Do you think that's feasible? What are your expectations?

Shashank: For Google, a large part of their business comes from the ability to drive search traffic, keyword advertisements, etc., and that's their traditional mainstay in India and across the world. I'm familiar with the Google program you mentioned,

about their goal and ambition. The number isn't unimaginable, however, it is hard to get there. For instance, Google launched their program last year and recently they sent out an update stating they have reached 50,000 users in the program.

There are about 10 million small and medium businesses in India who are IT addressable of which only 0.5 million actually have websites, close to 5 percent, which is a very low number. We're all doing our bit to boost this number. A lot of us (those in the domain registration business) are attacking the market from various sides.



Shashank Mehrotra,
Business Head, BigRock

Among domains registered through BigRock, what is the split between individuals and businesses?

Shashank: It's a fairly even split. We track this on a monthly basis, and again these are self-reported numbers. We do make our customers tell us which category they fit in and we analyse our user base, and they're fairly evenly

placed between registrants who categorise themselves as individuals and those who categorise themselves as a company or organization. In terms of percentage, the split is around 50-50.

What's the big deal about .ORG domain and why are you focusing on it now?

Brian: India's a very important market in terms of selling .org domains. The .org domain is a very well known brand and it is very trusted domain, that's one of its brand attributes. Traditionally people look at .org domain for non-commercial




Brian Cute, CEO, PIR

organisation and to some extent it is true. By partnering with BigRock, we are projecting the brand attributes of .org to a broader Indian audience, not just non-commercial organisations but also companies and small businesses. What we are trying to say is that if your company has the values reflected in the .org domain, from the way you

do your business and the way you treat your employees, so that .org is your home on the internet.

Can you talk a little about the upcoming TLDs and their online significance?

Brian: ICANN earlier published that it has space for at least 2100 new extensions in its system. These upcoming, new TLDs will be driven by big brands wanting to establish an address for their brand or company name (Google applying for .google domain, for e.g.). You will see geographically relevant domain names (gTLDs) coming up for prominent cities like .mumbai, .delhi, .london, .paris, things of that nature will be another segment. You will also see generic domains come up like .sports, .music, etc., that's a strong segment. And you'll also see community-based domain names - for e.g., we are applying for .ngo as a community-based TLD which is restricted only for registered non-governmental organizations. Expect these domains or similar kind of new TLDs to be available by this time next year. It's an exciting time ahead. 

READ MORE AT: digit.in/stateofweb

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Pick a photo printer for your office

Your office print yield shows more graphical prints compared to text documents? Time to invest in a dedicated photo printer but not before reading the following

Jayesh Shinde
jayesh.shinde@tbindigit.com

Who says photo printers are only needed in a home setup? There are other applications of photo printers than merely printing still moments from your last vacation trip. It isn't completely unreasonable to assume that an office environment won't have a high proportion of graphic prints. Working at a publishing house, we print a pretty sizable quantity of graphics on papers on a monthly basis – to check the print quality of photos, transition of visuals from PC screens to printed paper, etc. We can only imagine a graphics design house or a small ad agency requiring good quality photo prints to evaluate the quality of images on their client's marketing material, and how important it is to their day-to-day work. So yeah, photo printers do have office uses, too.

After identifying the need for a photo printer at your home office, let's take a look at some of the important aspects you need to consider and pay attention to while navigating down the path of a photo printer.

Printer yield

A big parameter in buying any printer is considering the product's print yield, because a big component of the printer's price and cost of ownership is calculated by its yield – just a claimed number of total pages you can print before switching your cartridges. And since printing a colourful photo consumes a lot more ink from your printer's cartridge than printing just

a text document, the issue of printer yield becomes that much more important in the case of a photo printer.

A critical point to remember that a printer's toner, ink or cartridge are rated by an ISO mark, and that's pretty much the only standardized rating that is trustworthy and comparable across different printer cartridges. Also understand that a printer cartridge's claimed yield number is a best case scenario, you will almost

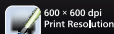


Printer yield's quite important



Your one stop solution to printing needs

Space Saving. Power Saving. Easy-to-use. Multi-functional.
The all new range of Printers from Panasonic. It's everything you want it to be.



KX-MB1500

Panasonic
Ideas for life

eco
ideas

Log on to www.panasonic.net or email priye.choudhary@in.panasonic.com

*Available in KX-MB1520

[illegible]



Google Compute Engine

Now you can run Linux Virtual Machines in the cloud using Google Compute Engine. <http://dgit.in/N3LixX>

Undo actions in Dropbox

Dropbox has added feature to Undo the actions on its Web interface. It will help users to correct their mistakes while moving, copying or renaming a file. <http://dgit.in/KHryQu>

Constant vigilance through internet surveillance

If you're concerned about the safety of your house or office, keeping a watchful eye on premises is now possible through the internet

Jayesh Shinde

readersletters@thinkdigit.com

When it comes to safety and security, one can never do enough. Most of us don't waste any opportunity to maximize the security cover of our property and belongings even if it's by a small degree. Nothing beats the peace of mind and reassurance gained from the knowledge that all is well and there's nothing to worry about the safety of your most prized possession. If fear and anxiety about the safety of your business premise gives you sleepless nights at home or the well-being of your flat or house haunts you at work, it's time to put the internet to work for you and monitor places via video feeds in real-time.

Give video surveillance over the web a try

The technology and its application isn't new – it's more than a few years old, actually – but it's been increasingly adopted at a personal level in India given the increased penetration of Internet in the country, rising broadband speeds, accessibility and availability of hardware and software, and increased public awareness.

In a nutshell, you determine the location you want to secure by installing this video surveillance system and access the

video feed over your PC or smartphone at a remote location. Taking into account the number of entry and exit points and location of valuables inside the location you want to secure, decide upon the number of IP cameras you need – every entrance and exit point should be monitored, as a rule. The location should have an internet connection (wired or wireless) or a 3G dongle for the cameras to connect and be online to broadcast signal out and into your PC or smartphone over the web.

After installing the required compatible software on your PC, you can start

monitoring remotely. Camera feeds can be viewed over an internet browser, in certain cases. Some of these IP cameras can be configured to take snapshots after a time delay, others can be setup to detect motion and only then start recording or broadcasting, so yeah there are some interesting deployment models out there for you to try and test.

The cheap way

You are worried about a new housekeeper or maid or babysitter that you hired recently to take care of your loved ones while you're at work. Setting up a remote video surveillance system to keep a discreet but watchful eye on your home is a great way to monitor their activities.

If you want to try things out at first and don't want to spend much, we suggest giving iCam a try. For all practical and test purposes, you don't even need to buy separate IP cameras, because iCam works flawlessly with your laptop or monitor's



Get phone alerts when iCam detects motion in its field of vision



iCam's command centre view with multiple cameras in a grid

Linux programmer's baby

You will definitely think about it only if you are a Linux programmer! Why? Just watch this video <http://dgit.in/MAVuPL>



Nexus 7 Vs Kindle Fire

Nexus 7 Vs Kindle Fire. Now, its time to watch the another tablet war this month. Finally, the epic battle of the tiny tablets begins... <http://dgit.in/L1lBrJ>

Smart SoHo

webcam and puts them to work for recording video and image feed. And yes, the software lets you remotely monitor the feed on an iOS or Android device – iPhone, iPod touch, iPad, any Android smartphone or tablet works very well with the iCam app (which is downloadable through Google Play Store or iTunes).

The setup is very simple and before doing anything else, ensure your laptop or desktop PC is online and connected to the Internet. On the laptop or PC with the built-in or connected webcam, designated for monitoring, install the iCamSource software. You don't need to register, just assign a username and password and start the application. The iCamSource should be up and running after these steps. To check whether you can view the live video feed, download and install the iCam app on your iPhone or Android device. After downloading the iCam app, login by entering the same username and password you designated during the iCamSource setup, and voila! You should now be able to see a live feed of your home or office conveniently on to your smartphone screen. Isn't that great?

Click on your phone's screen to zoom into the default thumbnail view of the broadcasting webcam – once zoomed in, the app not only detects video but also audio transmitted from the source. It also alerts you whenever it detects motion. Such a neat and convenient way to monitor your household when you're away, and for just US \$5 – that's all it costs. The only downside of this app is that it doesn't let you record and save video, it can only send snapshots for a fixed time. For more details, visit <http://skjm.com/icam>

Did you know that you can use Google+ Hangouts for basic surveillance of your house while you're in office? That's right, one of the relatively unknown (but ingenious) application of Google's very own social network is to turn its feature into a surveillance camera. How do you achieve that? Quite simple, actually.

Keep a laptop (with a working webcam and on the internet) connected to the power source and in the room you want to keep an eye on. Create a second Google+ account and login to the laptop. Add the alternate Google+ account in its own circle



Dome cameras hang upside down

and start a hangout with that circle. Voila! Not quite from a James Bond flick, but this isn't a bad basic surveillance tip, come on.

Professional surveillance options at your disposal

If you want to do more than just a simple, peer-to-peer surveillance setup like iCam or Google+ Hangouts, there are a few services out there that let you do a bit more. Obviously, such surveillance methods don't come for free, but you get a lot more out of them – for e.g. record and save video either on a local PC or on the cloud, connect multiple surveillance cameras, access live streaming video feed through a web browser, and receive mobile alerts.

GotoCamera is one such surveillance service, similar to iCam in terms of configuration and deployment (very simple) but offering a few extra features for a price. The initial setup process of GotoCamera is almost similar to that of iCam – download the software after you register for an account, install the tool, select cameras and you're good to go. GotoCamera lets you select the quality of video you want to record – 640 x 480 resolution is fine in most cases, share cameras with other



An IR camera

family members, even earmark recording schedules during the time slots when you're away from your home or office. Live feed of activity is accessible through a browser window, whenever you feel like checking on things. GotoCamera has a free basic version, but its paid version is the real deal which offers live video streams from up to four cameras, record and save video to local computer and 1 GB of online video storage. All this for just over US \$3 per month with tech support.

Choosing cameras

If you are concerned about the security of your house or business place, and want to keep a remote eye on those surrounding, it's a good idea to invest in a simple USB-connected webcam – just pick up any camera that fits your budget from Logitech, Creative or Microsoft. Choose a video management system (like iCam or GotoCamera) and you're good to go. There isn't a whole lot to choose from between webcams available at the budget end of the market. Also remember that one shouldn't expect the moon from such low-priced web-camera purchases. It won't and shouldn't have all the latest and greatest features, otherwise how do you explain the budget tag attached to them?

Additionally, if you need more sophisticated cameras with additional features, consider buying dome cameras, IR cameras or IP cameras. Dome cameras can be found most commonly in banks, railway stations and other public places where you need flexibility of direction. Dome cameras are also very easily camouflaged, generally hanging upside down affixed to the ceiling and resembling a half-exposed dark light bulb. IR cameras, as their name suggests, can shoot in near dark or extremely low-light environments and are useful for recording night-time surveillance footage.

IP cameras are just highly-evolved webcams which are strictly used for surveillance purpose only. In fact, both Dome and IR cameras can be technically dubbed as a subset of IP cameras.

TP-Link, Zicom, Sony and Logitech are some of the names that offer these specialized surveillance cameras, if you're contemplating to buy one for yourself.

SKOAR!

Diablo III, Dragon's Dogma,
Blacklight: Retribution.....
all reviewed

Community

Lucky enough to win in our lucky
draw? Plus, a peak into our
online communities.

Supermen: They are among us

Superhero movies are the norm now and one study states that this is all we'll be watching by 2013. But are superheroes real? Are they just flights of fancy? Are there people among us with latent superpowers just waiting to be released? We've scoured the web for some possible candidates and here they are



Scott Flansburg: Self-professed mathlete

A person who goes into a trance-like state just to do some math is one that deserves our respect. This gentleman can solve math problems faster than an accountant and can point out your mistakes even before you realize you made them. Insane math skills, a true superpower. Super Math Boy anyone?

Tim Cridland: The Torture King

"Cut me and I don't bleed", that is the motto of the Torture King. He can skewer himself with pins and needles, wires and knives, yet nary a drop of blood will spill. He seems immune to pain and even the skewers leave no marks. If this isn't superhero material we don't know what is. Tim isn't an amateur though. He has studied human anatomy extensively so as not to pierce an artery or vein accidentally.



Michel Lotito: Monsieur Mangelout

Now this guy ate an entire aeroplane! What do you say to that? Granted it took him two years to do it, but with a stomach lining twice the thickness of ours, he can even give a frisky little billy goat a run for it's money. And no, he doesn't go around bleating like a goat or have a vestigial tail that he wiggles around as he walks.



Kevin "Lionman" Richardson

The Beastmaster himself is among us. Kevin Richardson is an animal behaviourist who has managed to win the hearts of many wild animals, lions and hyenas included. He claims that he uses his instincts to form an emotional bond between himself and the beasts. Would you ever have the guts to kiss a lion on the nose? How about going for a casual swim with a lioness (and, we mean the animal)?

Garry "Stretch" Turner

Cape? What cape? This guy set a Guinness World Record for having the stretchiest skin, managing to stretch the skin on his stomach over 6 inches! This is the stuff flying squirrels are made of. All he has to do is leap off a building and stretch his skin, he can probably chase down the Batman himself, but we doubt Garry will be able to do anything to him once he catches him.



Bob "Gun Slinger" Munden

What do you call a man who can cut a thrown playing card in half with a bullet? A man who can fire two shots so fast, they sound like one? A man who claims to have held 3,500 records in shooting contests and one who critics claim is probably the best exhibition gunner in the world? You call him a Superhero. This 70-year old man will give even the best shooters a run for their money.

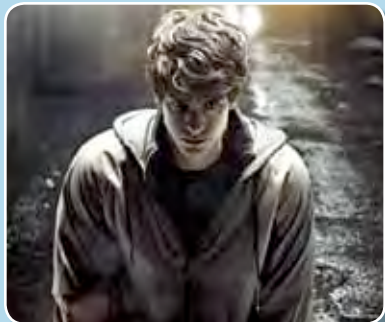
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Unwind

How we unwind**The Amazing Spiderman**

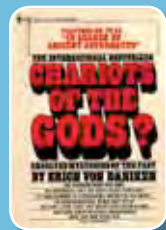
The team was very excited when we heard that the new Spiderman movie was going to be released. We started planning weeks in advance and only waited for Robert to leave for his US trip before we sneaked out of office to watch the film (ssshhh!). The movie was a letdown though. Maybe because Toby Maguire has been seared into our minds or maybe because the movie was just plain bad.

Two and a Half Men

Big Daddy suddenly had a hankering for *Two and a Half Men*. Anirudh obliged and brought his collection to office. Since then, we've been hooked, watching at least two episodes a day, sometimes more. The supremely twisted situations that Charlie and Alan end up in were hilarious to behold, despite some of us having already watched the entire series before.

**Free to Play**

Raaabo charged off to the US, leaving us mortals in charge of the magazine, a side effect of that was that there was no *Quake* this month, but we discovered the joys of Free to Play. Tribes and Blacklight vied for our attention, though *Tribes: Ascend* finally managed to win out. We would randomly interrupt our work to have an intellectual debate on the merits of using a Spinfusor vs a Thumper DX.

**Chariots of the Gods?**

For those of you who don't know, this book is all about how aliens have actually come and visited us in the past, the Gods

if you will. Wild theories abound, from the construction of the pyramids to the story of Moses. Some call it pseudoscientific nonsense, others call it fact. What do you think?

**Design of everyday things**

Written by a cognitive scientist, this book tries to break down the concepts of designing everyday objects. It's

an insightful read and succinctly explains various design philosophies and concepts. This book will leave you with a much better understanding of industrial design concepts at every level.

**A Time Odyssey**

An orthoquel (look it up) to *A Space Odyssey* by the same author, this series is all about a race of God-like people that

seek to regulate all sentient life in the universe. They actually merge timelines to try and create the perfect Earth. Timelines that are a million years apart. The name for this New Earth? Mir!

This was quite an eventful month, but then again, which month isn't? There was the time when Siddharth went to greet the freshly arrived monsoon, prancing around in the rain like a happy little child, while Anirudh and Mithun huddled around their PCs for warmth. And then there was that day when we managed to extricate Nimish from the cocoon he was wrapping around himself and bundled him off to a press conference. As it turned out, he arrived a bit too soon, a week too soon to be precise. He had some very choice words for us, but a few soothing words from Jayesh and Siddharth managed to calm him down to some extent. In other news, we didn't play any *Quake* this month, taking the "freedom" theme to heart, Free to Play games were the norm with *Tribes: Ascend* taking centre-stage! Mithun has become quite the pro and flies around the map bopping people left and right. If you ever decide to join us on Tribes, keep a lookout for pakoda, r4gs and staticsid. Also, keep an eye out for next month's issue, we're planning to get our very own Tribes servers online soon!



Taking on the zombie apocalypse with pompoms!



Sameer 'Psycho Mantis' Mitha
feedback@skoar.com

Another zombie slaying game has been added to the likes of *Left for Dead*, *Dead Rising* and *Resident Evil* but this game is different. For starters, the lead protagonist is an 18-year-old cheerleader with her boyfriend's head attached to her waist and slinging a chainsaw and pompoms to take down the gross undead. There is no real story to the game and the plot involves you killing zombies in one room and moving forward to the next. There is the occasional citizen to be saved in the mix. The highlight of the gameplay is its colourful design mixed with the hack and slash gameplay. Another good aspect to the design is the comic book structure that is given to the menu system and many in-game elements such as the score meter. Juliet's health is measured by lollipops and you can use the D-pad to eat a lollipop at anytime in the game to regain her health.

Conversations and the general chatter is something you don't want your mom to listen to. They start out gross and with very heavy sexual innuendoes, however the jokes eventually grow on you and you're sure to gain a few laughs. Gameplay is upgraded by purchasing new upgrades that are combos between jumping, the chainsaw and the

pompoms to rack up some impressive moves. It all boils down to basic hack and slash at the end of the day though.

There are other elements that try to keep the gameplay fresh. You stick your boyfriend's head on select zombies and take control of them to perform specific tasks throughout the game. These are more like quick-time-events and offer a break from all the hacking and slashing. Another monotony breaker comes in the form of boss fights. There isn't anything new here that we haven't already seen, but it is refreshing enough, thanks to the theme of the game.

The game isn't really long and you can run through the campaign in 5 to 7 hours and there isn't any motivation to run through the story again. There are a few frustrating elements to the game as well. The movement and camera feels very clunky and the controls feel a lot like button mashing rather than combo generating.

The graphics of the game too aren't the best, but they get the job done nonetheless. The comic book theme is colourful and you have rainbows and hearts all over the place along with the blood and slight gore. Juliet's moves are well animated but don't compare to the likes of the luscious Lara Croft. They are more reminiscent of teenager's fantasies. The sound direction in the game is quite peppy. The thuds and hacks of the chainsaw action sound nice.

The explosions are believable and the cheesy voice acting adds to the characters. Tara Strong, the same person who has lent her voice to Harley Quinn in *Batman Arkham Asylum*, lends her voice to the lead protagonist, Julie. ✨

Verdict

Overall *Lollipop Chainsaw* is a one-time run through for all you zombie-killing fans. There isn't much to keep you hooked and there are no online modes. It's definitely worth a rental if you want to laugh at cheeky jokes over a weekend when your parents aren't at home.

MOAR!

- » **Developer:** Grasshopper Manufacture
- » **Publisher:** Warner Bros Interactive
- » **Platforms:** PlayStation 3 and XBOX 360
- » **Price:** ₹2,499





Nikhil 'Postwar' Pradhan
feedback@skoar.com

If you asked us to sum up *Diablo III* in one line, here's what we would say: it's an average game that you should play, at least once.

For the uninitiated, *Diablo III*, like most other games, can be played in both single-player and multi-player modes. However, unlike most other games, even the single-player mode requires a constant internet connection. Blizzard has shed light on the reasoning behind this countless number of times but let's be honest: it's DRM and it's a particularly stupid form of DRM that turned off many *Diablo* fans.

To Blizzard's credit, we didn't face the connection issues that racked the game's launch, even once. We picked the EU servers to play and soon had a monk, named 'Drona,' off and running, punching monsters to death. The first hour or so, went off fine. Zombies exploded in chunks of gore and gristle, skeletons shattered into piles of ivory white bone and Drona plodded on, occasionally spouting fantasy-speak in a Russian accent. The first big issue we noticed was that there just wasn't enough good loot. Our monk was predominantly relying on fist weapons (think knuckle-dusters) and for almost three hours, we didn't come across even one fist weapon. Every once in a while,

our inventory would fill up and we would teleport back to town to sell it all. Soon, we had a lot of gold, but none of the merchants had anything worth buying so we just spent it all trying to upgrade at the town blacksmith. We had never engaged in any trading with other players in the previous games, and we thought we wouldn't need to do so this time around. But after three hours of just not getting good loot, we logged out of the game and logged in to the Auction House. It was magnificent, at first. We saw fist weapons, six times as powerful as the ones we had, being sold for meagre amounts of gold and we just couldn't get enough of shopping. But soon we realized the gaping flaw in all of this: why weren't we having this much fun in the game?

We started playing the game again and although it's paced very well (in terms of gameplay, not plot- there's hardly a plot to speak of). It's always pushing you ahead. The Auction House remained at the back of our mind, urging us to play a sort of mini-game, something we not only didn't care for, but which also, completely destroyed any semblance of immersion that the game had created. Four "Acts" later, our monk – now level 32, destroyed *Diablo* in a surprisingly easy fight and we knew we didn't want to play as him again, at least for a long time. Again, *Diablo III* is not a bad game. The clever changes to

the character skill systems and the way it pushes the action forward are testament to that fact. So are the professional movie-quality cinematics, sound design and slick interface. And that makes it worth playing, at least once. But most of all, and we say this keeping in mind the hours we've spent playing *Diablo II*: it's quite forgettable. ★

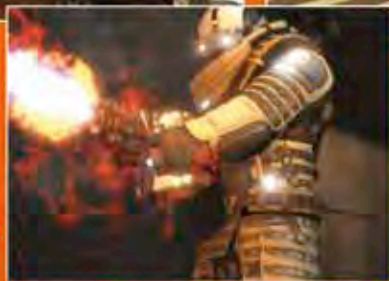
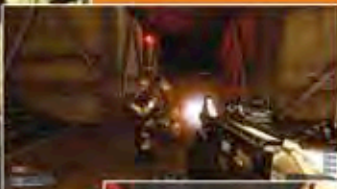
Verdict

If you're a fan of action-RPG click-fests, then you owe it to yourself to pick up *Diablo III*. However, if you've played the previous *Diablo* games, keep your expectations in check and you'll enjoy the game. If you're not a fan, then *Diablo III* won't do much to make you one.

MOAR!

- » **Developer:** Blizzard Entertainment
- » **Publisher:** Blizzard Entertainment
- » **Platforms:** PC Exclusive





A dubstep-fuelled shooting frenzy



BLACKLIGHT RETRIBUTION

Anirudh "Mad Zombie" Regidi
feedback@skoar.com

Blacklight: Retribution is the successor to the, somewhat successful, *Blacklight: Tango Down*. The main difference? This version is free! Running on Unreal Engine 3, the game looks and sounds good, raising the bar as far as "free" games are concerned.

Those familiar with the likes of *Call of Duty* will feel right at home in this game. While this game doesn't have as steep a learning curve as *Tribes*, or even *Counter-Strike* for that matter, the combat is a lot of fun and can get quite frenzied when the servers are full (which was almost all the time in our experience). There are various game-modes to choose from; the usual CTF and domination modes along with a few others, nothing unusual but enough for an enjoyable experience.

One of the mechanics that does set this game apart is the Hyper Reality Visor mode. This mode allows you to see everyone on the map at once, excellent for pinpointing those pesky campers and also for determining the combat hot-spots and the occasional loner. The only drawback is that you cannot fire and it can take you a second to get in and out of this mode, a lethal time delay in close combat. Also, the mode has a recharge

period so you can't just keep switching in and out of it as and when you please. Mechs are another interesting addition to the combat. They can be purchased at in-map stores and come with massive amounts of armor and are almost impossible to kill with just assault rifles and grenades. Of course, all the enemy has to do is pop over to a nearby store and pick up a stinger missile or flame-thrower and the mech is either scrap or toast. The latter allows you to enter the mech as only the occupant would die, leaving a red-hot mech that can be used again after it cools down. The mechs are therefore, quite vulnerable, but are also very powerful. Granted, they are slow, even so, a well-supported mech can wreak havoc on a battlefield.

There are currently only two servers to choose from – one in the US/AU and the other in the EU. We managed to get pings of about 300 ms on average on both servers, not ideal, but still playable. It is important to note that different servers store different profiles, so make sure you stick to one server once you get comfortable. The game is free to play, but you can also spend actual money to purchase upgrades. Regular "free" players are only limited to upgrades that they unlock based on their level, but players who pay real money get access to everything from the start, not to mention exclu-

sive items and even taunts. In-game items can be expensive if you want to purchase them, in terms of GP (Game Points), which is what you earn by actually playing games, but the game does allow you to rent items and upgrades for a nominal fee – a mechanic that, to a large extent, serves to balance the game between paying and "free" players. *

Verdict

What we really like about this game is that it provides a consistent shooting experience and one that really encourages team-play and also, the fully-customisable weapons. The game is nothing new or ground-breaking, but the mechanics are solid, the experience is fun and the game is free. Don't expect a *Battlefield* or *CoD*-esque online experience, just be prepared to have fun, the experience is even better if you happen to like dubstep!

MOAR!

- » **Developer:** Zombie Studios
- » **Publisher:** Perfect World Entertainment
- » **Platforms:** Microsoft Windows
- » **Genre:** FPS (Multiplayer only)
- » **Price:** Free



SKOAR!

SKOAR!



Dragon's Dogma: Good, not great

Jayesh "Big Daddy" Shinde
feedback@skoar.com

Dragon's Dogma begins like any other run-of-the-mill RPG. An extensive character modelling phase, with an incredible amount of features and the ability to control every minute detail of your in-game persona, results in a rather uncharismatic final look – no matter how much you try. Unfortunately, something's just off in the game with regards to how it displays characters. You pick a class (warrior, ranger or mage) and start the game – character levelling is extensive as you spend experience points gained through the game on skills and powers.

A cut-scene follows to give purpose to your character's quest, which is to defeat and rescue your heart from an ugly old dragon that attacks your fishing village. As someone without a physical heart, your character is thereby dubbed the Arisen. As you rightly guessed, your character is special and commands servitude from human-like creatures called Pawns – the game lets you attach

one permanent Pawn and two temporary ones to form a team to take on enemies and monsters. You can switch Pawns depending on their skills and power by accessing the Rift, a mysterious shadow world (some of the good parts of the game are highlighted outdoors). Dragon's Dogma is an open-world fantasy (much like The Elder Scrolls) and the in-game world is huge. There's a lot to explore and plenty of items to forage and it's easy to get sidetracked from your main quest. As mesmerizing as the in-game world gets, some finer details end up being disappointing. Upon meeting NPCs, you realize that dialogues are short, repetitive and unimaginative, and the quaint English just nags you to no end. Graphics, overall, look unpolished and game physics, in few

instances, seem dated. Fighting enemies or animals is quick and easy, but the real sparks of brilliance erupt once you corner a monster. Fighting cunning monsters who are difficult to kill requires you to have the right skills and team members

(Pawns). Battles are either really short or long and drawn out. In terms of audio, the game opens with a blast of Japanese rock that flatters to deceive as the game's background score and in-game sounds are faintly engaging, nowhere close to fantastic. However, things do get exciting as you reach Dragon's Dogma's conclusion. *

Verdict

Capcom's first fantasy action RPG, Dragon's Dogma, in moments rises to mythical grandeur and in equal parts crashes down to frustration and disappointment. It's a roller coaster ride worth hopping onto if you love Capcom and RPGs, but if you don't give it a try you aren't missing an epic.

MOAR!

- » **Developer:** Capcom
- » **Publisher:** Capcom
- » **Platforms:** PS3, Xbox 360
- » **Genre:** Fantasy RPG
- » **Price:** ₹3,299





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Jayesh Wasnik
Anybody pls suggest a mobile with good U.I and good performance under 13k
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Networking 101

If you never knew the difference between a router and a modem then this will give you a little heads up on the what's what in the world of networking.

We've all been on the internet, but have you ever wondered as to what constitutes this mammoth structure? We'll let's start from a small scale - two computers connected to each other. There are two common ways of doing this. One is to use an ethernet patch cord and connect it to the other computer's ethernet port. The two machines have now formed a small network. Such a network is useful for impromptu file transfers and serves a single purpose only. The other way is to connect both computers to a router/hub/switch and create a LAN. Now not only can you transfer files over to each other but the router/hub/switch can be connected to another network or to the internet.

There are different types of networks, each defined over the area and purpose that it serves. There is no fixed distance parameter over which each network is defined but a hierarchy in the increasing order of size is given below.

PAN - Personal Area Network < LAN - Local Area Network < MAN - Metropolitan Area Network < WAN - Wide Area Network

Packets

Data is sent across networks in an encapsulated form. Each unit of data is called a packet and each packet is of a fixed size depending upon the protocol used. The entire network is made of connecting devices and wires. The types of devices include routers, modems,

switches, hubs, bridges, repeaters and the wires include Cat5, Cat5e, Cat6, Fibre, Coaxial. Each device and cable is suited for a few specific purposes. Millions of networking devices are connected to each other using these devices (and others) to form the internet.

Addresses

Each device on a network has an address assigned to it. Right now we use IPv4 addresses which are of the form xxx.xxx.xxx.xxx where xxx ranges from 000 to 255. IPv4 allows for 2^{32} (4,294,967,296) addresses. This may seem very miniscule compared to the number of networking enabled devices on the internet, but each of these addresses can have an entire network behind them. IPv4 addresses have been exhausted and IPv6 addresses are now being assigned.

Devices

Router

A router forwards packets that it receives to their destination. The router examines each packet to get the destination address and forwards the packets to it. Take the router we have in our homes, multiple computers can be connected to a router but it makes sure that your traffic only comes to you and not to anyone else on the network.

Modem

Stands for modulation-demodulation. It's a simple device that encodes and decodes data onto a carrier signal. A modulated signal is capable of losing less data due to attenuation over large distances.

Hub

A device that connects a few routers



together, thus, essentially connecting a few networks together to create a small network.

Bridge

If two networks deal in different forms of packets or protocol then a bridge connects the two networks together. It checks the packet's destination to figure out if it needs to be sent across the bridge or not.

Switch

Differs slightly from a bridge in the sense that it is much more efficient in operation.


Repeater

Over large distances a communication signal tends to lose its strength and a lot of unwanted noise creeps in. A repeater takes this signal and regenerates it. Different types of signals have different distances at which a repeater is required. Eg. Cat5e and Cat6 require repeaters at a distance of 100 meters.

Standards

There are different protocols for connectivity and each is called a standard. The normal ethernet is standard IEEE 802.3, WiFi is IEEE 802.11 and IEEE 802.15.1 is Bluetooth. All protocols adhere to two standard models - OSI (Open Systems Interconnect) and TCP/IP model.

Client-Server Model

A majority of networking protocols are implemented in this manner. One node (server) manages a host of other nodes (clients). These servers in turn become clients for other servers which are at a higher place in the hierarchy. 

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Kinect



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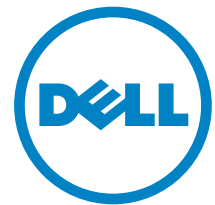
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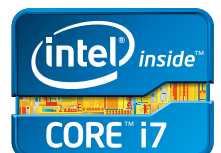
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